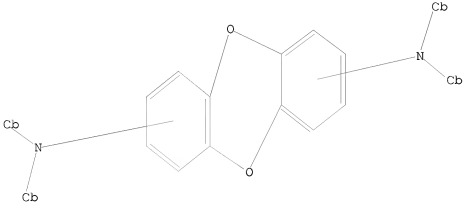
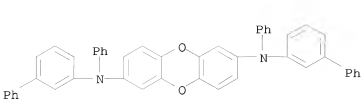
```
Uploading C:\Program Files\Stnexp\Queries\rkk373.str

L1      STRUCTURE UPLOADED

=> d
L1 HAS NO ANSWERS
L1              STR
```



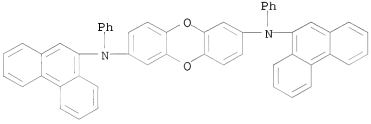

```
Structure attributes must be viewed using STN Express query preparation.


=> s l1 ful
FULL SEARCH INITIATED 17:38:13 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   797864 TO ITERATE

100.0% PROCESSED   797864 ITERATIONS  (     6 INCOMPLETE)        9 ANSWERS
SEARCH TIME: 00.00.06

L2            9 SEA SSS FUL L1

=> d 1-9

L2   ANSWER 1 OF 9  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   923030-30-2  REGISTRY
ED   Entered STN:  23 Feb 2007
CN   Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-bis([1,1'-biphenyl]-3-yl)-N2,N7-
     diphenyl-  (CA INDEX NAME)
OTHER NAMES:
CN   2,7-Bis[N-(biphenyl-3-yl)-N-phenylamino]dibenzodioxin
MF   C48 H34 N2 O2
SR   CA
LC   STN Files:   CA, CAPLUS
```



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 2 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
RN 862600-36-0 REGISTRY
ED Entered STN: 07 Sep 2005
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-9-phenanthrenyl-N2,N7-diphenyl- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N,N'-di-9-phenanthrenyl-N,N'-diphenyl- (9CI)
OTHER NAMES:
CN 2,7-Bis[N-(9-phenanthryl)-N-phenylamino]dibenzodioxin
MF C52 H34 N2 O2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

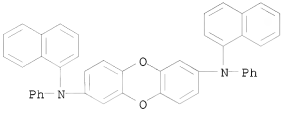


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 3 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
RN 862600-35-9 REGISTRY
ED Entered STN: 07 Sep 2005
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-1-naphthalenyl-N2,N7-diphenyl- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N,N'-di-1-naphthalenyl-N,N'-diphenyl- (9CI)
OTHER NAMES:
CN 2,7-Bis[N-(1-naphthyl)-N-phenylamino]dibenzodioxin

MF C44 H30 N2 O2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

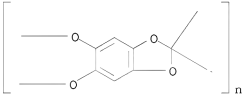


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 4 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
RN 132750-11-9 REGISTRY
ED Entered STN: 22 Mar 1991
ITERATION INCOMPLETE
CN Poly[1,3-benzodioxol-2-ylidene:5,6-diyl-5,6-bis(oxy)] (9CI) (CA INDEX NAME)
DR 133189-74-9
MF (C7 H2 O4)n
CI PMS
PCT Double strand, Polyother
SR CA
LC STN Files: CA, CAPLUS

RELATED POLYMERS AVAILABLE WITH POLYLINK



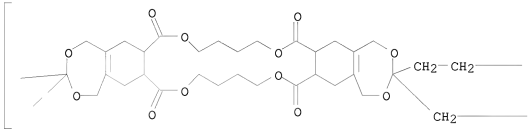
2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 5 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
RN 50979-25-4 REGISTRY
ED Entered STN: 16 Nov 1984
ITERATION INCOMPLETE
CN Poly(6,6a,7,9,10,11,12,14a,15,16,21,21a,22,24,25,26,27,29,29a,30-eicosahydro-7,14,22,29-tetraoxo-1H,5H,14H,20H-[1,6,11,16]tetraoxacycloeicosino[3,4-h:13,14-h']bis[2,4]benzodioxepin-3,18-

diylidene-18,18-di-1,2-ethanediyl) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1H,5H,14H,20H-[1,6,11,16]Tetraoxacycloeicosino[3,4-h:13,14-h']bis[2,4]benzodioxepin, deriv., polymer
OTHER NAMES:
CN Poly[6,6a,7,9,10,11,12,14a,15,16,21,21a,22,24,25,26,27,29,29a,30-eicosahydro-7,14,22,29-tetraoxo-1H,5H,14H,20H-[1,6,11,16]tetraoxacycloeicosino[3,4-h:13,14-h]bis[2,4]benzodioxepin-3,18-diylidene)-18,18-diethylene]
MF (C34 H44 O12)n
CI PMS
PCT Double strand, Polyother
LC STN Files: CA, CAPLUS

RELATED POLYMERS AVAILABLE WITH POLYLINK

PAGE 1-A



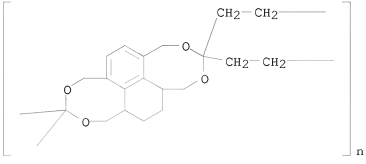
PAGE 1-B

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 6 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
RN 39861-81-9 REGISTRY
ED Entered STN: 16 Nov 1984
ITERATION INCOMPLETE
CN Poly[(1,5,5a,6,7,7a,8,12-octahydronaphtho[1,8-ef:4,5-e'f']bis[1,3]dioxocin-3,10-diylidene)-10,10-di-1,2-ethanediyl] (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Naphtho[1,8-ef:4,5-e'f']bis[1,3]dioxocin, deriv., polymer
OTHER NAMES:

CN 1,4-Cyclohexanedione-1,4,5,8-tetrakis(hydroxymethyl)-1,2,3,4-tetrahydronaphthalene polymer, SRU
MF (C20 H24 O4)n
CI PMS
PCT Double strand, Polyother
LC STN Files: CA, CAPLUS

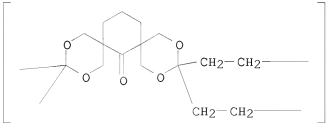
RELATED POLYMERS AVAILABLE WITH POLYLINK



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 7 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
RN 39723-74-5 REGISTRY
ED Entered STN: 16 Nov 1984
ITERATION INCOMPLETE
CN Poly[(7-oxo-2,4,10,12-tetraoxadispiro[5.1.5.3]hexadecane-3,11-diylidene)-11,11-di-1,2-ethanediyl] (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2,4,10,12-Tetraoxadispiro[5.1.5.3]hexadecane, deriv., polymer
OTHER NAMES:
CN 1,4-Cyclohexanedione-2,2,6,6-tetrakis(hydroxymethyl)cyclohexanone polymer, SRU
MF (C16 H22 O5)n
CI PMS
PCT Double strand, Polyother
LC STN Files: CA, CAPLUS

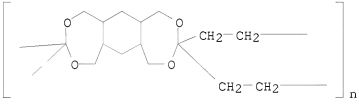
RELATED POLYMERS AVAILABLE WITH POLYLINK



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 8 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
RN 39723-73-4 REGISTRY
ED Entered STN: 16 Nov 1984
ITERATION INCOMPLETE
CN Poly(octahydro-1H,5H-benzo[1,2-e:4,5-e']bis[1,3]dioxepin-3,9-diylidene-9,9-di-1,2-ethanediyl) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1H,5H-Benzo[1,2-e:4,5-e']bis[1,3]dioxepin, deriv., polymer
OTHER NAMES:
CN 1,4-Cyclohexanedione-1,2,4,5-tetrakis(hydroxymethyl)cyclohexane polymer, SRU
MF (C16 H24 O4)n
CI PMS
PCT Double strand, Polyother
LC STN Files: CA, CAPLUS

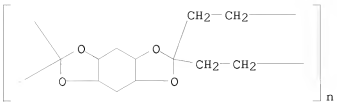
RELATED POLYMERS AVAILABLE WITH POLYLINK



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 9 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
RN 39723-72-3 REGISTRY
ED Entered STN: 16 Nov 1984
ITERATION INCOMPLETE
CN Poly[(hexahydrobenzo[1,2-d:4,5-d']bis[1,3]dioxole-2,6-diylidene)-6,6-di-1,2-ethanediyl] (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Benzo[1,2-d:4,5-d']bis[1,3]dioxole, deriv., polymer
OTHER NAMES:
CN 1,4-Cyclohexanedione-cis,cis-1,2,4,5-tetrahydroxycyclohexane polymer, SRU
MF (C12 H16 O4)n
CI PMS
PCT Double strand, Polyother
LC STN Files: CA, CAPLUS

RELATED POLYMERS AVAILABLE WITH POLYLINK



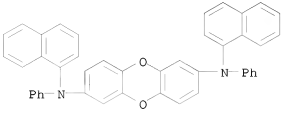
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

```
=> fil caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   196.82     197.03

FILE 'CAPLUS' ENTERED AT 17:38:55 ON 27 SEP 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)
```

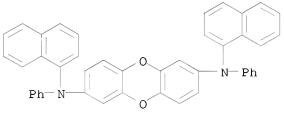


```
FILE COVERS 1907 - 27 Sep 2008  VOL 149 ISS 14
FILE LAST UPDATED: 26 Sep 2008  (20080926/ED)

Caplus now includes complete International Patent Classification (IPC)
reclassification data for the second quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/legal/infopolicy.html

=> s l2
L3            6 L2

=> d 1-6 fhitstr

L3   ANSWER 1 OF 6  CAPLUS  COPYRIGHT 2008 ACS on STN
IT   862600-35-9P, 2,7-Bis[N-(1-naphthyl)-N-phenylamino]dibenzodioxin
     RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or
     engineered material use); PREP (Preparation); USES (Uses)
        (preparation of heterocyclic compds. and organic electroluminescent device
        using them)
```

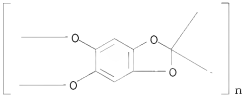
RN 862600-35-9 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-1-naphthalenyl-N2,N7-diphenyl- (CA INDEX NAME)



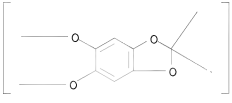
L3 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
IT 862600-35-9P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(aminodibenzodioxin derivative for organic electroluminescent device)
RN 862600-35-9 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-1-naphthalenyl-N2,N7-diphenyl- (CA INDEX NAME)



L3 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
IT 132750-11-9P
RL: PREP (Preparation)
(preparation of, acid- and heat-resistant)
RN 132750-11-9 CAPLUS
CN Poly[1,3-benzodioxol-2-ylidene:5,6-diyl-5,6-bis(oxy)] (9CI) (CA INDEX NAME)

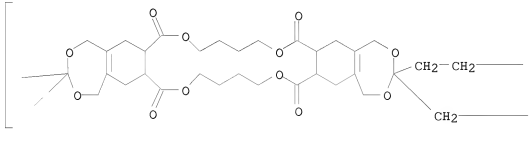


L3 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
IT 132750-11-9P, 2,2,6,6-Tetrachlorobenzo[1,2-d:4,5-d']bis[1,3]dioxole-1,2,4,5-tetrahydroxybenzene copolymer, SRU
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, from tetrachlorobenzobisdioxole and tetrahydroxybenzene)
RN 132750-11-9 CAPLUS
CN Poly[1,3-benzodioxol-2-ylidene:5,6-diyl-5,6-bis(oxy)] (9CI) (CA INDEX NAME)

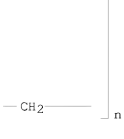


L3 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
IT 50979-25-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 50979-25-4 CAPLUS
CN Poly(6,6a,7,9,10,11,12,14a,15,16,21,21a,22,24,25,26,27,29,29a,30-eicosahydro-7,14,22,29-tetraoxo-1H,5H,14H,20H-[1,6,11,16]tetraoxacycloeicosino[3,4-h:13,14-h']bis[2,4]benzodioxepin-3,18-diylidene-18,18-di-1,2-ethanediyl) (9CI) (CA INDEX NAME)

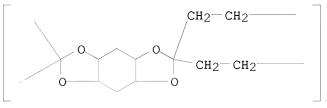
PAGE 1-A



PAGE 1-B

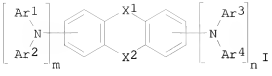


```
L3   ANSWER 6 OF 6  CAPLUS  COPYRIGHT 2008 ACS on STN
IT   39723-72-3P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
RN   39723-72-3  CAPLUS
CN   Poly[(hexahydrobenzo[1,2-d:4,5-d']bis[1,3]dioxole-2,6-diylidene)-6,6-di-
     1,2-ethanediyl] (9CI)  (CA INDEX NAME)
```




```
=> d 1-2 bib abs hitstr

L3   ANSWER 1 OF 6  CAPLUS  COPYRIGHT 2008 ACS on STN
AN   2007:150578  CAPLUS
DN   146:206317
TI   Preparation of heterocyclic compounds and organic electroluminescent
     device using them
IN   Kai, Takahiro; Yamamoto, Toshihiro; Komori, Masaki; Hotta, Masanori;
     Sawada, Yuichi
PA   Nippon Steel Chemical Co., Ltd., Japan
SO   PCT Int. Appl., 39pp.
     CODEN: PIXXD2
DT   Patent
LA   Japanese
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    -------------------    --------
PI   WO 2007015412        A1    20070208    WO 2006-JP314849       20060727
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,
             KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN,
             MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU,
             SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG,
             US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
     CN 101233127          A     20080730    CN 2006-80028335       20080201
     KR 2008037699         A     20080430    KR 2008-705258         20080303
PRAI JP 2005-225080        A     20050803
     WO 2006-JP314849      W     20060727
OS   MARPAT 146:206317
```

GI

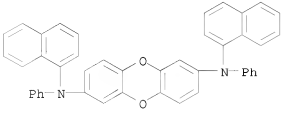


AB Heterocyclic compds. such as benzodioxin and thianthtrene derivs., [X1, X2 = O, S, NR; R = H, alkyl, (un)substituted aryl; Ar1, Ar2, Ar3, Ar4 = (un)substituted aryl; or Ar1 and Ar2 may form a nitrogen-containing heterocyclic ring together with the nitrogen atom they are bonded with, and so may Ar3 and Ar4; m, n = an integer of 1 or 2], useful as hole transporting materials, are prepared An organic electroluminescent device (EL) device containing the compound I in an organic layer is disclosed. This organic EL device possesses simple structure which is improved in luminous efficiency and sufficiently secured in driving stability. Thus, a solution of 0.79 g Pd(OAc)2 in 50 mL xylene was treated with 2.84 g tri(tert-butyl)phosphine and stirred at 80° for 30 min, and the resulting solution was transferred to a heated (80°) solution of 2,7-diaminobenzodioxin 7.54, 2,2'-dibromobiphenyl, 22.0, and sodium tert-butoxide 28.41 g in 500 mL xylene. The resulting mixture was heated to 125° and stirred for 5 h to give, after workup, 25.4% 2,7-bis(9-carbazolyl)dibenzodioxin (II) (4.60 g). An organic EL device with a luminous layer fabricated by vapor codeposition of II and Ir(ppy)3 (ppy = 2-phenylpyridine) exhibited luminous efficiency of 10 mA/cm2, luminance of 2,400 sd/m2, visual luminous efficiency of 8.2 lm/W, and luminance half life of 1,500 h.

IT 862600-35-9P, 2,7-Bis[N-(1-naphthyl)-N-phenylamino]dibenzodioxin
862600-36-0P, 2,7-Bis[N-(9-phenanthryl)-N-phenylamino]dibenzodioxin 923030-30-2P, 2,7-Bis[N-(biphenyl-3-yl)-N-phenylamino]dibenzodioxin
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of heterocyclic compds. and organic electroluminescent device using them)

RN 862600-35-9 CAPLUS

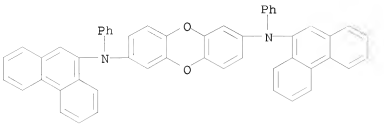
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-1-naphthalenyl-N2,N7-diphenyl- (CA INDEX NAME)



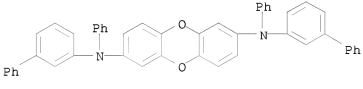
RN 862600-36-0 CAPLUS

CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-9-phenanthrenyl-N2,N7-

diphenyl- (CA INDEX NAME)



RN 923030-30-2 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-bis([1,1'-biphenyl]-3-yl)-N2,N7-diphenyl- (CA INDEX NAME)



RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2005:823683 CAPLUS
DN 143:238789
TI Aminodibenzodioxin derivative and organic electroluminescent device using same
IN Kai, Takahiro; Sekiya, Hirokatsu; Miyazaki, Hiroshi; Ishikawa, Shigetaka
PA Nippon Steel Chemical Co., Ltd., Japan
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

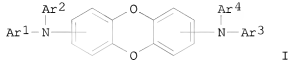
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005075451	A1	20050818	WO 2005-JP1079	20050127

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

	CN 1918141	A	20070221	CN 2005-80004456	20050127
	US 20070129555	A1	20070607	US 2006-588373	20060802
PRAI	JP 2004-32380	A	20040209		
	WO 2005-JP1079	W	20050127		

OS MARPAT 143:238789

GI



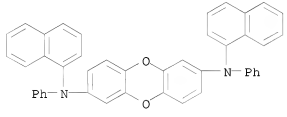
I

AB Disclosed is a highly reliable material for organic electroluminescent devices which has high luminance and high luminous efficiency, hardly deteriorates in emission, and is excellent in use and storage at high temps. Also disclosed is an organic electroluminescent device using such a material. The material for organic electroluminescent devices is a diaminodibenzodioxin derivative represented by the general formula I, and it can be included in a light-emitting layer, hole transport layer or hole injection layer of an organic electroluminescent device. In the formula, Ar1, Ar2, Ar3 and Ar4 resp. represent a substituted or unsubstituted aryl group. Incidentally, Ar1 and Ar2 as well as Ar3 and Ar4 may form a nitrogen-containing heterocyclic ring together with a nitrogen bonded thereto.

IT 862600-35-9P 862600-36-0P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(aminodibenzodioxin derivative for organic electroluminescent device)

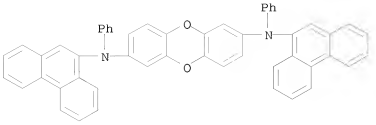
RN 862600-35-9 CAPLUS

CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-1-naphthalenyl-N2,N7-diphenyl- (CA INDEX NAME)



RN 862600-36-0 CAPLUS

CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-9-phenanthrenyl-N2,N7-diphenyl- (CA INDEX NAME)



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=>
Uploading C:\Program Files\Stnexp\Queries\rkk373b.str

L4 STRUCTURE UPLOADED

=> fil reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	28.54	225.57

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.60	-1.60

FILE 'REGISTRY' ENTERED AT 17:41:43 ON 27 SEP 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 26 SEP 2008 HIGHEST RN 1053621-88-7
DICTIONARY FILE UPDATES: 26 SEP 2008 HIGHEST RN 1053621-88-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> s l4 ful
FULL SEARCH INITIATED 17:41:47 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 17430 TO ITERATE

100.0% PROCESSED 17430 ITERATIONS 95 ANSWERS
SEARCH TIME: 00.00.01

L5 95 SEA SSS FUL L4

=> fil caplus
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 178.36 403.93

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE ENTRY TOTAL SESSION
CA SUBSCRIBER PRICE 0.00 -1.60

FILE 'CAPLUS' ENTERED AT 17:41:56 ON 27 SEP 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 27 Sep 2008 VOL 149 ISS 14
FILE LAST UPDATED: 26 Sep 2008 (20080926/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

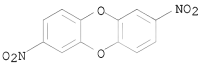
http://www.cas.org/legal/infopolicy.html

=> s 15
L6 52 L5

=> d 40-52 bib abs hitstr

L6 ANSWER 40 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1964:7975 CAPLUS
DN 60:7975
OREF 60:1363c-e
TI Sorption of copper and zinc cations on some minerals
AU Mitrofanov, S. I.; Kushnikova, V. G.
SO Sb. Tr. Gos. Nauchn.Issled. Inst. Tsvetn. Metal. (1962), No. 19, 34-9
DT Journal

LA Unavailable
AB By using radioactive Cu (CA 54, 19083b) the adsorption of Cu on pyrite, chalcopyrite, galena, smithsonite, and hemimorphite was studied. With chalcopyrite and pyrite the sorption of Cu2+ increases with increased concentration and pH; with pyrite the maximum adsorption is at pH 9.5, with chalcopyrite at pH 7.0. The sorption of Cu on galena increases sharply with decreased pH and increased Cu concentration With pyrite from a Cu-cyanide complex the sorption of Cu increases with decreased pH up to 5.5 and, after 3 min., reaches a constant value of about 0.007 mg./g. With sulfidized Zn minerals, sorption curves of Cu have a maximum which coincides with maximum with sphalerite and pyrrhotite, while with nonsulfidized hemimorphite the maximum is shifted toward pH 4.5. With pyrite the addition of pyrite xanthogenate causes a decrease sorption of Cu, while with pyrrhotite, galena, and chalcopyrite the reverse is true up to the addition of 200% of xanthogenate; above this value the sorption of Cu decreases. A study with 65Zn has shown that the sorption of Zn on sulfides is also selective, depending on pH; in the presence of Na diethyldithiophosphate the sorption of Zn increases with sphalerite and pyrite at pH 5.5-7.0, while with chalcopyrite the process of Zn sorption is conventional.
IT 71400-33-4, Dibenzo-p-dioxin, 2,7-dinitro-
(magnetic resonance absorption of, in H2SO4)
RN 71400-33-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



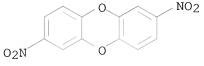
L6 ANSWER 41 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1963:473059 CAPLUS
DN 59:73059
OREF 59:13512a-c
TI Cation radicals of dibenzo-p-dioxin and related compounds
AU Tomita, Masao; Ueda, Shinichi; Nakai, Yasuto; Deguchi, Yasho; Takaki, Hideo
CS Univ. Kyoto, Japan
SO Tetrahedron Letters (1963), (18), 1189-94
CODEN: TELEAY; ISSN: 0040-4039
DT Journal
LA Unavailable
AB cf. CA 54, 24748e. Dibenzo-p-dioxin (I) and its octamethyl derivative (II) gave a blue color and electron spin resonance (E.S.R.) signals in concentrated H2SO4 without addition of oxidizing materials. The E.S.R. study of the color from I showed the presence of cation radicals (III). The spectrum of III (g value .apprx.2.0036) with 5 distinct lines (intensity ratios 1:4:6:4:1) indicated a coupling of an unpaired electron spin with a set of 4 equivalent H nuclei in either 1,4,6,9- or 2,3,7,8-positions, resp. Addnl. information was obtained from a study of dibenzo-p-dioxin-2,7-disulfonic acid (IV). IV in concentrated H2SO4 with KNO3 gave a 3-line spectrum (intensity ratio 1:2:1) only. Accordingly, there must be a strong contribution from 3,8 protons to give the major pattern of the cation, and the contribution

of 2,3,7,8 protons predominated over that of the 1,4,6,8,9 protons in III. II and 2,7-dimethyl-3,8-diethyl- and 2,3,7,8-tetrabromo-derivs. of I all gave E.S.R. spectra in 98% H2SO4 with KNO3. In all spectra, the field sweep increased at the same rate from left to right on the figures with a modulation amplitude of 0.1 gauss. The spectra were calibrated with aqueous K peroxylamine disulfonate.

IT 71400-33-4, Dibenzo-p-dioxin, 2,7-dinitro-
(magnetic resonance absorption of, in H2SO4 solution)

RN 71400-33-4 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



L6 ANSWER 42 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1963:469133 CAPLUS

DN 59:69133

OREF 59:12793f-g

TI Dibenzo-p-dioxin (diphenylene dioxide) derivatives. XXXV. Reaction of nitric-sulfuric acid mixture and dibenzo-p-dioxin derivatives

AU Ueda, Shinichi

CS Univ. Kyoto, Japan

SO Yakugaku Zasshi (1963), 639-42, 657-8
CODEN: YKKZAJ; ISSN: 0031-6903

DT Journal

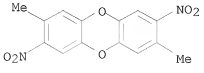
LA Unavailable

AB Dibenzo-p-dioxin (0.1 g.) at -20° treated with a mixture of 2.8 ml. concentrated H2SO4 and 2.4 ml. HNO3 (d. 1.42), stirred 2 min., and the product poured on 100 g. ice and filtered gave 90 mg. 2,7-dinitrodibenzo-p-dioxin, m. 256°. Similarly, 0.1 g. 2,7-dimethyldibenzo-p-dioxin gave 80 mg. 2,7-dimethyl-3,8-dinitrodibenzo-p-dioxin, m. 243-3.5° (Me2CO). 1,6-Dibromodibenzo-p-dioxin treated as above remained unchanged.

IT 14967-03-4P, Dibenzo-p-dioxin, 2,7-dimethyl-3,8-dinitro-
71400-33-4P, Dibenzo-p-dioxin, 2,7-dinitro-
RL: PREP (Preparation)
(preparation of)

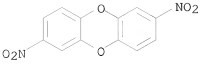
RN 14967-03-4 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 2,7-dimethyl-3,8-dinitro- (CA INDEX NAME)

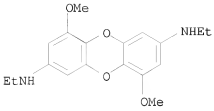


RN 71400-33-4 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)

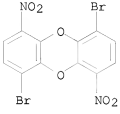


L6 ANSWER 43 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1963:469132 CAPLUS
DN 59:69132
OREF 59:12793c-f
TI Dibenzo-p-dioxin (diphenylene dioxide) derivatives. XXXIV. Synthesis of 2,9-dimethyl-6,13-dimethoxy-1,2,3,4,8,9,10,11-octahydro-p-dioxino[2,3-h:5,6-h']diisoquinoline
AU Ueda, Shinichi
CS Univ. Kyoto, Japan
SO Yakugaku Zasshi (1963) 639-42
CODEN: YKKZAJ; ISSN: 0031-6903
DT Journal
LA Unavailable
GI For diagram(s), see printed CA Issue.
AB 2,7-Bis(2-nitrovinyl)-4,9-dimethoxy dibenzo-p-dioxin (1 g.) in 700 ml. tetrahydrofuran (THF) treated with 6 g. LiAlH4, heated 5 hrs. at 70°, cooled, the solution (cooled with ice and NaCl) treated with 10 ml. 20% K Na tartrate in 5 ml. THF, and, after the evolution of gas ceased, the solution concentrated gave 2,7-bis(2-aminoethyl)-4,9-dimethoxydibenzo-p-dioxin (I).2H2O, m. 150-3° (CHCl3); I dioxalate m. 203-5° (decomposition). I (1 g.) in 2 ml. EtOH treated with 0.5 ml. HCO2H, Et2O added, the precipitate collected, heated 1 hr. at 150°, the residue in CHCl3 washed with 2% H2SO4 and concentrated gave 0.2 g. 2,7-bis-(2-formylaminoethyl)-4,9-dimethoxydibenzo-p-dioxin (II), m. 148-50°. II (0.2 g.) in 30 ml. CHCl3 treated with 7.5 ml. POCl3, heated 5 hrs. at 125°, the solution concentrated in vacuo, the residue extracted with 10% HCl, washed with C6H6, made alkaline with NH4OH and the product extracted with CHCl3 gave 6,13-dimethoxy-3,4,10,11-tetrahydro-p-dioxino [2,3-h:5,6-h'] diisoquinoline (III), yellow oil; III.2MeI.2H2O m. >300°. III (20 mg.) in 20 ml. MeOH and 0.2 g. NaBH4 kept 3 hrs. at 15°, the solution concentrated, and the residue in 5% KOH extracted with CHCl3 gave 6,13-dimethoxy-1,2,3,4,8,9,10,11 -octahydro-p-dioxino[2,3-h:5,6-h']diisoquinoline (IV), needles, m. 248-53°. IV (30 mg.) in 8 ml. HCO2H and 3 ml. 37% HCHO refluxed 2 hrs., the solution concentrated in vacuo, the residue in 5% KOH extracted with CHCl3, taken up in 2% H3SO4, made alkaline with NH4OH, and the product extracted with CHCl3 gave 2,9-dimethyl-6,13-dimethoxy-1,2,3,4,8,9,10,11-octahydro-p-dioxino-[2,3-h:5,6-h']diisoquinoline (V), m. 254-6°; dipicrate m. >280°. III.2MeI (10 mg.) in 20 ml. MeOH and 50 mg. NaBH4 stirred 1 hr., the solution concentrated, and the residue treated as usual gave V, m. 253-5°.
IT 98762-76-6P, Dibenzo-p-dioxin-2,7-bis(ethylamine), 4,9-dimethoxy-
RL: PREP (Preparation)
(preparation of)
RN 98762-76-6 CAPLUS
CN Dibenzo-p-dioxin-2,7-bis(ethylamine), 4,9-dimethoxy- (7CI) (CA INDEX NAME)

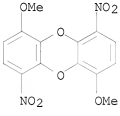


L6 ANSWER 44 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1963:469131 CAPLUS
DN 59:69131
OREF 59:12792g-h,12793a-c
TI Dibenzo-p-dioxin (diphenylene dioxide) derivatives. XXXIII. Substitution reaction of 1,6-dimethoxydibenzo-p-dioxin and 1,6-dibromodibenzo-p-dioxin
AU Ueda, Shinichi; Teraoka, Akio
CS Univ. Kyoto, Japan
SO Yakugaku Zasshi (1963), 83, 552-4
CODEN: YKKZAJ; ISSN: 0031-6903
DT Journal
LA Unavailable
GI For diagram(s), see printed CA Issue.
AB cf. ibid. 82, 1333-6(1962); CA 58, 3419e). 2,6-Br2C6H3OH (I) (60 g.) in 80 ml. MeOH treated with 13.6 g. KOH in 120 ml. MeOH, the solution evaporated to dryness, the residue and 4.8 g. Cu heated 1 hr. at 180-90°, and the product extracted with C6H6, washed with 5% KOH, and purified (C6H6-Al2O3) gave 3.1 g. 1,6-dibromodibenzo-p-dioxin(II),m.221.5-2.0°. I(1 g.), 1 g. Cu, and 5 ml. C5H5N heated 2.5 hrs. at 145° and the product in C6H6 chromatographed through Al2O3 gave 10 mg. dibenzo-p-dioxin, m. 118°. 1,6-Dimethoxydibenzo-p-dioxin (III) (0.1 g.) in 40 ml. AcOH treated with 0.39 g. Br in 5 ml. AcOH, heated 2 hrs. at 40-50°, 10% NaHSO8 added, and the precipitate filtered off gave 140 mg. 4,9-di-Br analog (IV) of III, m. 277° (C6H6). II (0.2 g.) in 100 ml. AcOH at 70° was treated dropwise with 20 ml. fuming HNO3, stirred 1.5 hrs., the solution (cooled with ice-NaCl) treated with 100 ml. H2O, and poured into 200 ml. H2O to give 0.1 g. 1,6-dibromo-4,9-dinitrobenzo-p-dioxin (V), m. 255-7°. V (40 mg.) in 20 ml. AcOH and 2 ml. dioxane reduced with Pd-C and H, the product in 25 ml. each of H2O and H2SO4 treated dropwise with a solution of 50 mg. NaNO2 in 2 ml. H2O, kept 1 hr. at 5-10°, the product poured into a solution of a solution of 16.5 ml. H2SO4 and 15 ml. H2O at 165°, stirred 2 hrs. and extracted with CHCl2, kept 4 days with CH2N2Et2O, and the residue treated as usual gave IV, m. 262-7°. III (0.1 g.) in 40 ml. AcOH at 30° treated with a solution of 1 ml. fuming HNO3 at 30°, kept 1 hr. at 55°, 40 ml. H2O added, and the product filtered off gave a small amount of 4-nitro-1,6-dimethoxydibenzo-p-dioxin, needles, m. 235°. III (0.1 g.) in 40 ml. AcOH at 60° treated with 10 ml. fuming HNO3, stirred 4 hrs. at 80-90°, 150 ml. H2O added, and the product filtered off gave 1,6-dimeth- oxy-4,9-dinitrodibenzo-p-dioxin, m. above 300° (Me2CO).
IT 91268-64-3P, Dibenzo-p-dioxin, 1,6-dibromo-4,9-dinitro-

92906-01-9P, Dibenzo-p-dioxin, 1,6-dimethoxy-4,9-dinitro-
RL: PREP (Preparation)
(preparation of)
RN 91268-64-3 CAPLUS
CN Dibenzo-p-dioxin, 1,6-dibromo-4,9-dinitro- (7CI) (CA INDEX NAME)



RN 92906-01-9 CAPLUS
CN Dibenzo-p-dioxin, 1,6-dimethoxy-4,9-dinitro- (7CI) (CA INDEX NAME)



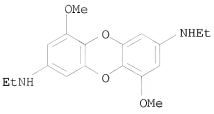
L6 ANSWER 45 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1963:20719 CAPLUS
DN 58:20719
OREF 58:3419e-h,3420a-b
TI Dibenzo-p-dioxin derivatives. XXXI. Synthesis of 2,7-bis(2-aminoethyl)-4,9-dimethoxydibenzo-p-dioxin
AU Ueda, Shinichi
CS Univ. Kyoto
SO Yakugaku Zasshi (1962), 82, 714-18
CODEN: YKKZAJ; ISSN: 0031-6903
DT Journal
LA Unavailable
AB cf. CA 55, 23539a. 2,7-Dimethyldibenzo-p-dioxin (0.5 g.) in 10 ml. each of H2O and C5H5N treated with 5.3 g. KMnO4 portionwise, heated 1 hr., the solution concentrated, concentrated HCl added dropwise and the precipitate filtered off gave 0.45 g. dibenzo-p-dioxin-2,7-dicarboxylic acid (I), m. above 300°, di-Me ester, m. 248°. o-Cresol (36 g.) at 22° treated with 55 g. concentrated H2SO4 dropwise, heated 8 hrs. at 100°, the solution at 0° treated dropwise with 56 g. Br in 50 g. PhNO2, kept 5 hrs. at 10°, the excess Br removed by addition of 2% NaHSO3, the PhNO2 steam distilled and the residue extracted with Et2O gave 54 g. 6-bromo-o-cresol, b. 208°; this 2 g. in MeOH and 0.6 g. KOH concentrated, the residue with 320 mg. Cu heated 30 min. at 195° and the

product extracted with C6H6 gave 60 mg. 1,6-dimethyldibenzo-p-dioxin (II), m. 166°. Oxidation of II with KMnO4 as in I gave 78% dibenzo-p-dioxin-1,6-dicarboxylic acid (III), m. above 300°; di-Me ester of III, needles, m. 215°. Zn-Hg (from 400 g. Zn, 40 g. HgCl2, 600 ml. H2O, and 20 ml. concentrated HCl) treated with a mixture of 200 g. 5-bromovanillin, 700 ml. PhMe, 700 ml. concentrated HCl and 300 ml. H2O, refluxed 2.5 hrs., refluxed 20 hrs. with addition of concentrated HCl, 40 ml. in every 3 hrs., and the PhMe layer concentrated gave 9.5 g. 2-bromo-6-methoxy-p-cresol (IV), b3 148°, m. 51°; the crystals separated during the concentration of IV gave 3,3'-dimethoxy-5,5'-dibromo-4,4'-stilbenediol (V), needles, sublimes at 220°. Methylation of V with CH2N2 gave 3,3',4,4'-tetramethoxy-5,5'-dibromostilbene, m. 194-6°. A mixture of 3.5 g. KOH, 25 ml. HOCH2CH2OH, 1 g. 5-bromovanillin, and 4 ml. 80% N2H4.H2O refluxed 3.5 hrs., heated 7.5 hrs. at 200°, cooled, 25 ml. H2O added, poured in 15 ml. 20% HCl and the product extracted with C6H6 gave 0.4 g. IV, m. 50°. IV (10 g.) treated with 2.5 g. KOH in MeOH, the solution concentrated, the residue with 1.6 g. Cu heated 1.5 hrs. at 200°, the product in C6H6 chromatographed through Al2O3 gave 250 mg. 2,7-dimethyl-4,9-dimethoxydibenzo-p-dioxin (VI), needles, m. 204°. IV (50 g.) in 38 ml. C6H6N and 10 g. Cu heated 2.5 hrs. at 140° and the product treated as usual gave 4.16 g. VI, m. 204°. Oxidation of 3.5 g. VI in 195 ml. C5H5N and 100 ml. H2O with 45 g. KMnO4 gave 3.2 g. 4,9-dimethoxydibenzo-p-dioxin-2,7-dicarboxylic acid (VII), m. above 300°; di-Me ester, needles, m. 290°. VII (0.8g.)and 16 g. SOCl2 heated 1 hr. at 75° and the product concentrated gave 0.89 g. acid chloride (VIII) of VII, columns, m. 257° VIII (0.4 g.) in 100 ml. PhMe and 150 mg. 5% Pd-BaSO4 treated with dry H 2 hrs. at 120° and the solution concentrated in vacuo gave 0.19 g. 4,9-dimethoxydibenzo-p-dioxin-2,7-dicarboxaldehyde (IX), needles, m. 315° (C6H6). IX (60 mg.) in 25 ml. MeOH and 1 ml. MeNO2 at 0° treated dropwise with a solution of 1.5 g. KOH in 20 ml. MeOH, stirred 4.5 hrs. at 9°, the solution filtered, and the filtrate poured in 70 ml. 5% HCl gave 70 mg. 2,7-bis(2-nitrovinyl)4,9-dimethoxydibenzo-p-dioxin (X), m. above 290°. X (50 mg.) in 30 ml. tetrahydrofuran (25 ml. more added later) treated with 300 mg. LiAlH4, stirred 4.5 hrs. at 85°, cooled, 3.5 ml. 20% K Na tartrate and 3 ml. H2O added and the product filtered gave 40 mg. 2,7-bis(2-aminoethyl)-4,9-dimethoxydibenzo-p-dioxin, oil; dioxalate-H2O m. 196-8° (decomposition).

IT 98762-76-6P, Dibenzo-p-dioxin-2,7-bis(ethylamine), 4,9-dimethoxy-
RL: PREP (Preparation)
(preparation of)

RN 98762-76-6 CAPLUS

CN Dibenzo-p-dioxin-2,7-bis(ethylamine), 4,9-dimethoxy- (7CI) (CA INDEX NAME)

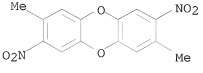


L6 ANSWER 46 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1960:97607 CAPLUS
DN 54:97607
OREF 54:18528c-i
TI Dibenzo-p-dioxin derivatives. XXVIII. Chlorination and nitration reactions of 2,7-dimethyldibenzo-p-dioxin
AU Tomita, Masao; Ueda, Shinichi
CS Univ. Kyoto
SO Yakugaku Zasshi (1960), 80, 353-7
CODEN: YKKZAJ; ISSN: 0031-6903
DT Journal
LA Unavailable
AB cf. CA 53, 13152d. 2,7-Dimethyldibenzo-p-dioxin (I) (1 g.) in 20 ml. dry C6H6 (under reflux and exposure to ultraviolet light) was treated by passing in dry Cl gas 4 hrs. and cooled to give 0.8 g. 3,8-di-Cl derivative (II) of I, m. 231° (C6H6); the mother liquor yielded C6H6Cl6, m. 157-8°. Catalytic reduction of II in dioxane with Pd-C ended with the recovery of unreacted II. I (1 g.) in 40 ml. AcOH treated dropwise with 9 ml. HNO3 (d. 1.45) at 25°, the mixture stirred 30 min. at 50-5°, H2O added, and the product filtered gave the 3,8-di-NO2 derivative (III) of I, needles, m. 240-1° (Me2CO). Catalytic reduction of 0.1 g. III in 40 ml. AcOEt and 20 ml. dioxane with Raney Ni yielded the 3,8-di-NH2 derivative (IV) of I, needles, m. 271-3° (EtOH); HCl salt m. 285°. IV (80 mg.) in 25 ml. concentrated HCl at 0-5° treated with 50 mg. NaNO2 in H2O, the mixture stirred 30 min., the solution filtered, and the filtrate treated with 350 mg. Cu2Cl2 in 2.5 ml. 15% HCl and heated 7 hrs. at 100° gave II, m. 224-6°. m-Cresol (46 ml.) in 47 ml. AcOH at 0-5° added dropwise to 57.5 ml. 58% HNO3 and 135 ml. AcOH, the mixture kept 1 hr. at 5°, 500 ml. ice H2O added, and the precipitate filtered and steam distilled gave 12.5 g. 1,3,4-Me(HO)(O2N)C6H3 (V), needles, m. 56° (EtOH). V (4.3 g.) in 150 ml. CHCl3 treated dropwise with 1.5 ml. Br in 20 ml. CHCl3 at 35°, the mixture stirred 2 hrs. at 45°, 270 ml. 5% KOH added, the precipitate of K salt treated with concentrated HCl, and the product extracted with Et2O gave the di-Br derivative of V, m. 142°; the KOH-soluble portion acidified with HCl and the product extracted with Et2O gave 1,3,4,6-Me(HO)Br(O2N)C6H2 (VI), needles, m. 118-19° (C6H6). IV (0.14 g.) in 30 ml. H2O and 5 ml. concentrated H2SO4 at 15.5° treated dropwise with 0.1 g. NaNO2 in 2.5 ml. H2O, the solution added dropwise to a solution of 15 ml. H2O and 16.5 ml. concentrated H2SO4 at 160°, stirred 2 hrs., cooled, and the product filtered gave 20 mg. powder; this in 25 ml. MeOH and 25 ml. CHCl3 treated with CH2N2 (from 4 g. nitrosomethylurea) in Et2O, kept 4 days, 0.5 ml. AcOH added and the

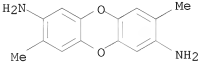
product extracted with Et2O gave 10 mg. 3,8-di-MeO analog (VII) of IV, needles, m. 203-5° (C6H6). Catalytic reduction of 0.2 g. 1,2,4,5Me(MeO)(HO)(O2N)C6H2 in 20 ml. AcOEt with Raney Ni gave 1,2,4,5-Me(MeO)(HO)(H2N)C6H2 (VIII), plates, m. 152-3° (C6H6). VIII (0.46 g.) in 40 ml. 40% HBr at 2° treated with 210 mg. NaNO2 in 4 mL. H2O, the mixture stirred 2 hrs., heated 1 hr. at 100° with 0.1 g. Cu, and the product steam-distilled and extracted with Et2O gave a di-Br derivative (oil) of 1,2,4-Me(MeO)(HO)C6H3 (IX). IX (2.7 g.), m. 55-6°, in 50 ml. CHCl3 at -7° treated dropwise with 0.8 ml. Br in 20 ml. CHCl3, the mixture stirred 4 hrs., 10 ml. 1% NaHSO3 added, and the CHCl3 layer concentrated gave 1,2,4,5-Me(MeO)(HO)BrC6H2 (X), b2 113°, m. 53-4° (petr. ether). A solution of 4 g. X in 20 ml. MeOH and 1.03 g. KOH concentrated, the residue mixed with 620 mg. Cu, heated 30 min. at 180°, and the product extracted with warm C6H6, washed with 5% KOH, and passed through Al2O3 gave 20 mg. VII, m. 203-5°.

IT 14967-03-4P, Dibenzo-p-dioxin, 2,7-dimethyl-3,8-dinitro-
71400-30-1P, Dibenzo-p-dioxin-2,7-diamine, 3,8-dimethyl-
109259-51-0P, Dibenzo-p-dioxin-2,7-diamine, 3,8-dimethyl-, hydrochloride
RL: PREP (Preparation)
(preparation of)

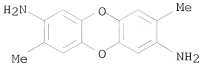
RN 14967-03-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dimethyl-3,8-dinitro- (CA INDEX NAME)



RN 71400-30-1 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, 3,8-dimethyl- (CA INDEX NAME)

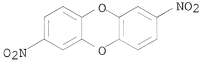


RN 109259-51-0 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, 3,8-dimethyl-, hydrochloride (1:1) (CA INDEX NAME)



● HCl

L6 ANSWER 47 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1959:60681 CAPLUS
DN 53:60681
OREF 53:10967b-c
TI Infrared absorption spectra of aromatic ether compounds. II. Characteristic bands of dibenzo-p-dioxin derivatives
AU Narisada, Masayuki
CS Shionogi & Co., Amagasaki
SO Yakugaku Zasshi (1959), 79, 183-5
CODEN: YKKZAJ; ISSN: 0031-6903
DT Journal
LA Unavailable
AB Infrared absorption spectra of various dibenzo-p-dioxin derivs. were measured and a strong absorption band was found in the region of 1330-1280 cm.-1, considered to originate in asym. stretching vibration of C-O. At the same time, examns. were made on absorption bands for C-H out-of-plane vibrations.
IT 71400-33-4, Dibenzo-p-dioxin, 2,7-dinitro-
(spectrum of)
RN 71400-33-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)

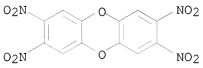


L6 ANSWER 48 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1958:55927 CAPLUS
DN 52:55927
OREF 52:10091b-h
TI Bromonitro and related derivatives of dibenzo-p-dioxin
AU Gilman, Henry; Dietrich, Joseph J.
CS Iowa State Coll., Ames
SO Journal of the American Chemical Society (1958), 80, 366-8
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA Unavailable
OS CASREACT 52:55927
AB 2-Nitrodibenzo-p-dioxin (I) (2 g.), 3.6 g. KBr, 1 g. KBrO3, 5 cc. H2O, and 50 cc. glacial AcOH refluxed 1.5 hrs., diluted with aqueous NaHSO3, and filtered

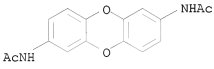
yielded 0.6 g. 7-Br derivative (II) of I, yellow needles, m. 215-17° (glacial AcOH). 2-Bromodibenzo-p-dioxin (III) (1.5 g.), 2 cc. concentrated HNO3, and 20 cc. glacial AcOH heated 10 min. at 50-60°, cooled, diluted with H2O, and filtered gave 0.1 g. II. SnCl2 (12 g.) in 25 cc. concentrated HCl added slowly to 4.3 g. II in 25 cc. hot glacial AcOH, heated 10 min., basified strongly with aqueous KOH, and filtered yielded 3 g. (crude) 2-NH2 analog (IV) of II, needles, m. 180-3° (C6H6). IV (2 g.) in 25 cc. glacial AcOH diazotized at 18° with 8 cc. nitrosylsulfuric acid, stirred 10 min., added at 5° to CuBr in HBr, heated to 80°, diluted with H2O, and filtered gave 0.6 g. 7-Br derivative (V) of III, light yellow plates, m. 197-8° (C6H6). 2,7-Diaminodibenzo-p-dioxin (VI) (4.5 g.) diazotized in the usual manner, stirred 10 min., and added at 5° to BuBr in HBr yielded 1.2 g. V, m. 195-7°. 2,7-Diacetyldibenzo-p-dioxin (1.7 g.) stirred 18 hrs. at room temperature with 4.2 g. PCl3 in 150 cc. dry C6H6, hydrolyzed, and filtered gave 0.8 g. N N'-di-Ac derivative (VII) of VI, tan needles, m. 254-6° (decomposition) (aqueous AcOH). VI (1 g.) and 30 cc. refluxing C6H6 treated slowly with 2 g. Ac2O, refluxed 0.5 hr., cooled, and filtered yielded 1 g. VII, tan needles, m. 356-7° (decomposition) (glacial AcOH). I (2.7 g.), 8 g. Br, and 50 cc. glacial AcOH refluxed 5.5 hrs. with stirring, diluted with aqueous NaHSO3, and filtered gave a small amount of 3-Br derivative (VIII) of II, yellow crystals, m. 217-20° (glacial AcOH). III (1.3 g.) added slowly to 50 cc. concentrated HNO3 with cooling, stirred 10 hrs. at room temperature, diluted with H2O, and filtered gave 0.5 g. 3-NO2 derivative (IX) of II, yellow needles, m. 190-2° (EtOH). Dibenzo-p-dioxin (X) (9.2 g.) added in small portions to 150 cc. concentrated HNO3 and 100 cc. concentrated H2SO4 with cooling, warmed during 1 hr. to 90°, cooled, and diluted with H2O gave 3.1 g. 2,3,7,8-tetranitro derivative (XI) of X, red-brown needles, m. 334-5° (decomposition) (Ac2O). 2,7-Dinitrodibenzo-p-dioxin (1.7 g.), 50 cc. concentrated HNO3, and 50 cc. fuming HNO3 warmed to 60° during 2 hrs., diluted with H2O, and filtered gave 1.9 g. crude XI, m. 330-3° (decomposition). 2,8-di-Br derivative (1.5 g.) of X added slowly at room temperature with stirring to 50 cc. concentrated HNO3 and 30 cc. concentrated H2SO4, stirred 20 min. at room temperature, warmed to 60°, cooled, and diluted with H2O yielded 1.5 g. (crude) 8-Br derivative of IX, yellow needles, m. 276-8° (glacial AcOH). 2,3-Di-Br derivative (0.5 g.) of X and 10 cc. glacial AcOH treated with cooling with 5 cc. concentrated HNO3, heated slowly to reflux, refluxed 0.5 hr., and diluted with H2O yielded 0.3 g. 8-NO2 derivative of VIII, yellow plates, m. 267-70° (C6H6-ligroine, b. 60-70°). 2-NH2 derivative (XII) (2 g.) of X, 3.6 g. Br, and 100 cc. CCl4 stirred 2.5 hrs. at room temperature, washed with aqueous NaHSO3 and aqueous KOH, and evaporated, and the residue recrystd. twice from aqueous EtOH yielded 0.8 g. x-Br derivative of XII, pink needles, m. 152-4°.

IT 52354-40-2P, Dibenzo-p-dioxin, 2,3,7,8-tetranitro-
52354-41-3P, Dibenzo-p-dioxin, 2,7-diacetamido-
104175-41-9P, Dibenzo-p-dioxin, 2-bromo-3,7-dinitro-
104294-07-7P, Dibenzo-p-dioxin, 2,8-dibromo-3,7-dinitro-

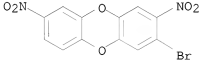
RL: PREP (Preparation)
(preparation of)
RN 52354-40-2 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetranitro- (CA INDEX NAME)



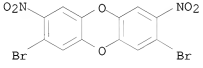
RN 52354-41-3 CAPLUS
CN Acetamide, N,N'-dibenzo[b,e][1,4]dioxin-2,7-diylbis- (CA INDEX NAME)



RN 104175-41-9 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2-bromo-3,7-dinitro- (CA INDEX NAME)

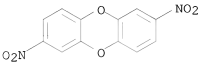


RN 104294-07-7 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,8-dibromo-3,7-dinitro- (CA INDEX NAME)

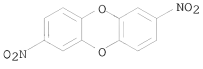


L6 ANSWER 49 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1953:41674 CAPLUS
DN 47:41674
OREF 47:7028c-f
TI Antibacterial activity of some organic compounds in vitro. VI. Antibacterial activity of diphenyl ethers and related compounds on Mycobacterium tuberculosis, Micrococcus pyogenes var. aureus, and Escherichia coli
AU Tomita, Masao; Watanabe, Waichi
CS Univ. Kyoto
SO Yakugaku Zasshi (1953), 73, 209-11
CODEN: YKKZAJ; ISSN: 0031-6903
DT Journal

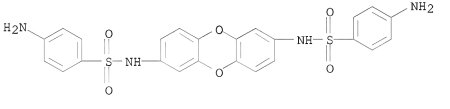
LA Unavailable
AB Effective dilns. (1000 dilution = 1) to inhibit the growth of Mycobacterium tuberculosis, M. pyogenes var. aureus, and E. coli, resp., were tested in the following: 3,6-(NaO)2C6H3OPh, 4, 8, 8; 3,5-(NaO)2C6H3OPh, 16, 8, 4; 6-NaOC6H4OC6H4ONa-4, 8, 8, 8; 6-MeOC6H4OC6H4OMe-3, all <8; 6-MeOC6H4OC6H4OMe-4, <7, <6, <6; (3-MeOC6H4)2O, <8, <7, <7; 3-MeOC6H4OC6H4OMe-4, all <6; 6-MeOC6H4OC6H4OMe-6, <9, <8, <8; 6-NaO2CC6H4OC6H4ONa, <2, <1, <1; 6-NaO2CC6H4OC6H4OMe-6, 1, <1, <1; 5-PhOC9H6N, <18, <14, <14; 7-phenoxy-1,2,3,4-tetrahydroquinoline (I), all <20; 8-PhO analog of I, <22, <12, <12; 1-methyl-8-phenoxy-1,2,3,4-tetrahydroquinoline, all <7; 6,7-dimethoxy-8-(p-phenoxybenzyl)-1,2,3,4-tetrahydroisoquinoline, 8, -, -; (4-ClH2CC6H4)2O, <12, <10, <10; PhOC6H4CH2CONH2-p, 20, 20, <10; 6-HOH2CC6H4C6H4ONa-6, <1, 2, 4; 6-BrH2CC6H4C6H4ONa-6, 1, 4, 4; 6-methoxy-7-hydroxy-1-(p-methoxybenzyl)-1,2,3,4-tetrahydroisoquinoline-HCl, 5, <5, <5; dauricine-HCl, all <1; depsidone, 4, <1, <1; dibenzo-α-pyrone, 20, 20, <10; 6-dibenzopyran, all <10.
IT 71400-33-4, Dibenzo-p-dioxin, 2,7-dinitro-
(bactericidal action of)
RN 71400-33-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



L6 ANSWER 50 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1953:41673 CAPLUS
DN 47:41673
OREF 47:7028b-c
TI Antibacterial activity of some organic compounds in vitro. V. Antibacterial activity of diphenyl ethers and related compounds on Mycobacterium tuberculosis, Staphylococcus aureus, and Escherichia coli
AU Tomita, Masao; Watanabe, Waichi
CS Univ. Kyoto
SO Yakugaku Zasshi (1952), 72, 478-82
CODEN: YKKZAJ; ISSN: 0031-6903
DT Journal
LA Unavailable
AB cf. C.A. 46, 7617h. Several derivs. of Ph2O, diphenylene dioxide (I), phenoxthin, Ph2S, and Ph2S2 were tested for antibacterial activity against M. tuberculosis (II), Staph. aureus (III), and E. coli. 2,6-(MeCHBrCO)2 derivative of I, 3,4,6-BzO(Br2)C6H2OPh, 3,4,6-HOBr2C6H2OPh, 1-(4-phenoxybenzyl)-6,7-methylenedioxy-1,2,3,4-tetrahydroisoquinoline, and p-H2NC6H4S2C6H4NH2-p' showed a strong antibacterial action for III; rather high antibacterial action against II was shown by 1-C10H7OC10H7-2 and (2-C10H7)2O.
IT 71400-33-4, Dibenzo-p-dioxin, 2,7-dinitro-
(bactericidal action of)
RN 71400-33-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



L6 ANSWER 51 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1951:46927 CAPLUS
DN 45:46927
OREF 45:7975e-f
TI Synthesis of dibenzo-p-dioxin derivatives. XVIII. Synthesis of sulfanilamido derivatives
AU Tomita, Masao; Itoh, Genzo
CS Univ. Kyoto
SO Yakugaku Zasshi (1945), 65(No. 7/8A), 10
CODEN: YKKZAJ; ISSN: 0031-6903
DT Journal
LA Unavailable
AB cf. C.A. 45, 5146a. Saponification of the Ac compds. obtained by the reaction of
p-AcNHC6H4SO2Cl and 2-amino- or 2,7-diaminodibenzo-p-dioxin gave the 2-sulfanilamido derivative, scaly crystals, m. 224°, and the 2,7-disulfanilamido derivative, m. over 300°, resp.
IT 859744-53-9P, Dibenzo-p-dioxin, 2,7-disulfanilamido-
RL: PREP (Preparation)
(preparation of)
RN 859744-53-9 CAPLUS
CN Dibenzo-p-dioxin, 2,7-disulfanilamido- (5CI) (CA INDEX NAME)



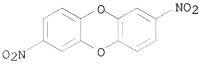
L6 ANSWER 52 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1937:47874 CAPLUS
DN 31:47874
OREF 31:6661c-h
TI The synthesis of diphenylene dioxide derivatives. VI. The nitration of diphenylene dioxide
AU Tomita, Masao
SO Yakugaku Zasshi (1935), 55(Abstracts), 1060-7;205-8
From: Chem. Zentr. 1936, I, 2552-3
CODEN: YKKZAJ; ISSN: 0031-6903
DT Journal
LA German
AB cf. C. A. 31, 3484.5. Of the nitro and amino derivs. of diphenylene dioxide (I), the only ones previously known were the 1,3-dinitro derivative,

m. 192°, the 1,3-diamino, m. 198-200°, and the latter's di-Ac derivative, m. 253°. By nitration of I under various conditions a mononitro derivative (II), 2 dinitro derivs., m. 190° (III) and 256° (IV), and a trinitro derivative (V) were obtained. When HNO8 of d. 1.45 in HOAc was used and the mixture cooled with ice large amts. of II and only traces of IV were obtained. Similar treatment at room temps. yielded large amts. of IV and traces of III and V. Gentle warming and the use of HNO3 of d. 1.38 without the use of HOAc gave III and IV. Warming with HNO3 of d. 1.45 gave only V. Further nitration of II gave III, IV and V, as nitration of III or IV likewise gave V. Reduction of the nitro compds. with Sn and concentrated HCl gave the amino derivs. Diazotization and boiling of the diamino derivative (from reduction of IV) gave the 2,6-di-HO derivative of I (anthracene numbering used by author), m. 269°, and previously prepared by other methods (cf. C. A. 28, 3391.6). Thus IV was shown to be the 2,6-dinitro derivative of I, C12H6O6N2, crystals from acetone, m. 256°, and II the 2-nitro deriv of I, C12H7O4N, m. 141°. The diamino derivative of I prepared from III and its di-Ac derivative differed from the known 1,3-derivs. mentioned above. Further, the diamino derivative prepared from III did not condense with phenanthrenequinone. These facts and its formation directly from the 2-nitro derivative indicate III to be the 2,7-dinitro derivative of I, C12H6O6N2, yellow needles, m. 190°. The triamino derivative prepared from V gave an azine with phenanthrenequinone and must therefore be the 2,6,7-trinitro derivative of I, C12H6O8N3, light yellow prisms, m. 215-17°. The azine, C26H15O2N3, forms microscopic yellow crystals, m. 339°. Data are given for the following addnl. derivs. of I: 2-amino, C12H9O2N, crystals from ether, m. 157°, and its HCl salt, C12H10O2NCl, m. 288° (decomposition); 2,7-diamino, C12H10O2N2, m.178°, and its di-HCl salt, C12H12O2N2Cl2, m. above 300°, and its di-Ac derivative, m. 292°; 2,6-diamino, C12H10O2N2, crystals from alc., m. 249°, and its di-HCl salt, C12H12O N2Cl2, m. above 300°; and 2,6,7-triamino, C12H11O2N3, m. 173°. All nitro and amino compds. gave the blue color reaction with H2SO4HNO3.

IT 71400-33-4P, Dibenzo-p-dioxin, 2,7-dinitro- 71400-34-5P, Dibenzo-p-dioxin, 2,8-dinitro- 71400-35-6P, Dibenzo-p-dioxin-2,7-diamine 71400-36-7P, Dibenzo-p-dioxin-2,8-diamine 201741-71-1P, Dibenzo-p-dioxin, 2,3,7-trinitro- 854396-37-5P, Dibenzo-p-dioxin-2,3,7-triamine 854396-96-6P , Dibenzo-p-dioxin-2,8-diamine, N,N'-diacetyl- 854397-57-2P, Dibenzo-p-dioxin-2,8-diamine, dihydrochloride 854397-58-3P, Dibenzo-p-dioxin-2,7-diamine, dihydrochloride
RL: PREP (Preparation)
(preparation of)

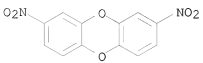
RN 71400-33-4 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)

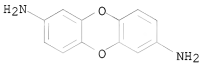


RN 71400-34-5 CAPLUS

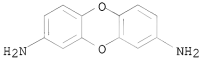
CN Dibenzo[b,e][1,4]dioxin, 2,8-dinitro- (CA INDEX NAME)



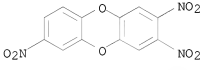
RN 71400-35-6 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine (CA INDEX NAME)



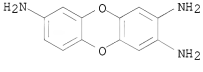
RN 71400-36-7 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,8-diamine (CA INDEX NAME)



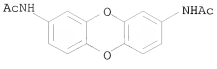
RN 201741-71-1 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,3,7-trinitro- (CA INDEX NAME)



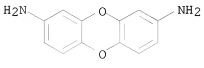
RN 854396-37-5 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,3,7-triamine (CA INDEX NAME)



RN 854396-96-6 CAPLUS
CN Dibenzo-p-dioxin-2,8-diamine, N,N'-diacetyl- (4CI) (CA INDEX NAME)

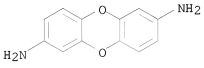


RN 854397-57-2 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,8-diamine, hydrochloride (1:2) (CA INDEX NAME)



●2 HCl

RN 854397-58-3 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, hydrochloride (1:2) (CA INDEX NAME)



●2 HCl

=> d 1-39 bib abs hitstr

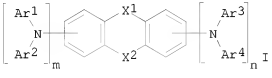
L6 ANSWER 1 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2007:150578 CAPLUS
DN 146:206317
TI Preparation of heterocyclic compounds and organic electroluminescent device using them
IN Kai, Takahiro; Yamamoto, Toshihiro; Komori, Masaki; Hotta, Masanori; Sawada, Yuichi
PA Nippon Steel Chemical Co., Ltd., Japan
SO PCT Int. Appl., 39pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2007015412	A1	20070208	WO 2006-JP314849	20060727

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,
KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN,
MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU,
SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG,
US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM

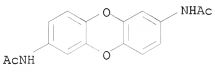
CN 101233127 A 20080730 CN 2006-80028335 20080201
KR 2008037699 A 20080430 KR 2008-705258 20080303
PRAI JP 2005-225080 A 20050803
WO 2006-JP314849 W 20060727
OS MARPAT 146:206317
GI



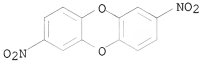
AB Heterocyclic compds. such as benzodioxin and thianthtrene derivs., [X1, X2 = O, S, NR; R = H, alkyl, (un)substituted aryl; Ar1, Ar2, Ar3, Ar4 = (un)substituted aryl; or Ar1 and Ar2 may form a nitrogen-containing heterocyclic ring together with the nitrogen atom they are bonded with, and so may Ar3 and Ar4; m, n = an integer of 1 or 2], useful as hole transporting materials, are prepared An organic electroluminescent device (EL) device containing the compound I in an organic layer is disclosed. This organic EL
device possesses simple structure which is improved in luminous efficiency and sufficiently secured in driving stability. Thus, a solution of 0.79 g Pd(OAc)2 in 50 mL xylene was treated with 2.84 g tri(tert-butyl)phosphine and stirred at 80° for 30 min, and the resulting solution was transferred to a heated (80°) solution of 2,7-diaminobenzodioxin 7.54, 2,2'-dibromobiphenyl, 22.0, and sodium tert-butoxide 28.41 g in 500 mL xylene. The resulting mixture was heated to 125° and stirred for 5 h to give, after workup, 25.4% 2,7-bis(9-carbazolyl)dibenzodioxin (II) (4.60 g). An organic EL device with a luminous layer fabricated by vapor codeposition of II and Ir(ppy)3 (ppy = 2-phenylpyridine) exhibited luminous efficiency of 10 mA/cm2, luminance of 2,400 sd/m2, visual luminous efficiency of 8.2 lm/W, and luminance half life of 1,500 h.

IT 52354-41-3P, 2,7-Bis(acetylamino)dibenzodioxin 71400-33-4P
, 2,7-Dinitrodibenzodioxin 71400-35-6P, 2,7-Diaminodibenzodioxin
862600-33-7P, 2,7-Bis(N-phenyl-N-acetylamino)dibenzodioxin
862600-34-8P, 2,7-Bis(phenylamino)dibenzodioxin
923030-26-6P, 2,7-Bis[N-(3-pyridyl)-N-acetylamino]dibenzodioxin
923030-27-7P, 2,7-Bis[(3-pyridyl)amino]dibenzodioxin
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of heterocyclic compds. and organic

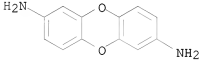
electroluminescent device using them)
RN 52354-41-3 CAPLUS
CN Acetamide, N,N'-dibenzo[b,e][1,4]dioxin-2,7-diylbis- (CA INDEX NAME)



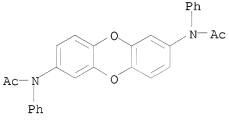
RN 71400-33-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



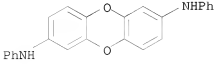
RN 71400-35-6 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine (CA INDEX NAME)



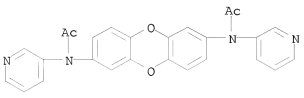
RN 862600-33-7 CAPLUS
CN Acetamide, N,N'-dibenzo[b,e][1,4]dioxin-2,7-diylbis[N-phenyl- (CA INDEX NAME)



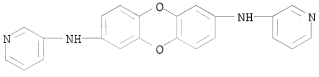
RN 862600-34-8 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-diphenyl- (CA INDEX NAME)



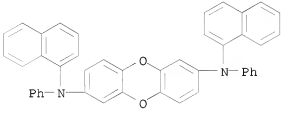
RN 923030-26-6 CAPLUS
CN Acetamide, N,N'-dibenzo[b,e][1,4]dioxin-2,7-diylbis[N-3-pyridinyl- (CA INDEX NAME)



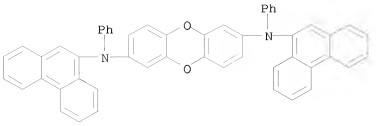
RN 923030-27-7 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-3-pyridinyl- (CA INDEX NAME)



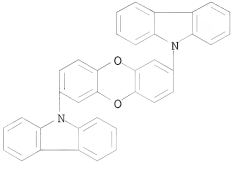
IT 862600-35-9P, 2,7-Bis[N-(1-naphthyl)-N-phenylamino]dibenzodioxin
862600-36-0P, 2,7-Bis[N-(9-phenanthryl)-N-phenylamino]dibenzodioxin 923030-28-8P, 2,7-Bis(9-carbazolyl)dibenzodioxin 923030-30-2P, 2,7-Bis[N-(biphenyl-3-yl)-N-phenylamino]dibenzodioxin 923030-31-3P, 2,7-Bis[N-(biphenyl-3-yl)-N-(3-pyridyl)amino]dibenzodioxin
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of heterocyclic compds. and organic electroluminescent device using them)
RN 862600-35-9 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-1-naphthalenyl-N2,N7-diphenyl- (CA INDEX NAME)



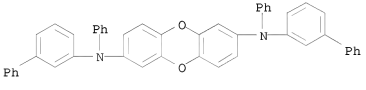
RN 862600-36-0 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-9-phenanthrenyl-N2,N7-diphenyl- (CA INDEX NAME)



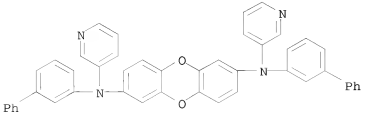
RN 923030-28-8 CAPLUS
CN 9H-Carbazole, 9,9'-dibenzo[b,e][1,4]dioxin-2,7-diylbis- (CA INDEX NAME)



RN 923030-30-2 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-bis([1,1'-biphenyl]-3-yl)-N2,N7-diphenyl- (CA INDEX NAME)



RN 923030-31-3 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-bis([1,1'-biphenyl]-3-yl)-N2,N7-di-3-pyridinyl- (CA INDEX NAME)

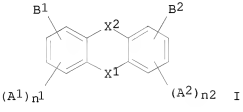


RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

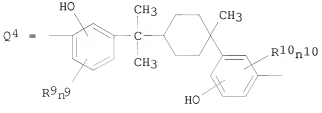
L6 ANSWER 2 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2006:1147284 CAPLUS
DN 145:480098
TI Organic electroluminescent device, display and illuminating device
IN Sugita, Shuichi; Tanaka, Tatsuo
PA Konica Minolta Holdings, Inc., Japan
SO PCT Int. Appl., 58pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006114966	A1	20061102	WO 2006-JP306079	20060327
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	GB 2439030	A	20071212	GB 2007-19650	20060327
PRAI	JP 2005-119503	A	20050418		
	WO 2006-JP306079	W	20060327		

OS MARPAT 145:480098
GI



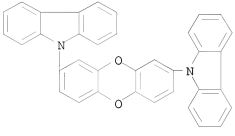
I



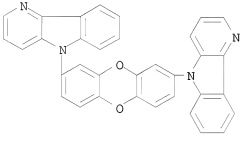
AB The disclosed organic electroluminescent device is characterized in that it comprises a constituent layer including at least a phosphorescent light-emitting layer between a pair of electrodes, and at least one layer in the constituent layer contains a compound represented by the following general formula I (A1, A2 = substituents; n1, n2 = 0-3; X1, X2 = O, S, alkylene, NH, CO, SO, SO2; B1, B2 = Q; Z1. Z2 = aromatic heterocycle, aromatic hydrocarbon ring; Z3 = bond, divalent linking group). Also disclosed are a display and an illuminating device. The organic electroluminescent device has high emission luminance, high external quantum efficiency and long life.

IT 913737-91-4 913737-92-5
RL: MOA (Modifier or additive use); USES (Uses)
(organic electroluminescent devices containing)

RN 913737-91-4 CAPLUS
CN 9H-Carbazole, 9,9'-dibenzo[b,e][1,4]dioxin-2,8-diylbis- (9CI) (CA INDEX NAME)



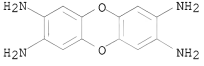
RN 913737-92-5 CAPLUS
CN 5H-Pyrido[3,2-b]indole, 5,5'-dibenzo[b,e][1,4]dioxin-2,8-diylbis- (9CI) (CA INDEX NAME)



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2006:214675 CAPLUS
DN 146:81990
TI Modular main-chain organometallic polymers based on N-heterocyclic carbene-metal centers
AU Boydston, Andrew J.; Bielawski, Christopher W.

CS Department of Chemistry and Biochemistry, University of Texas at Austin, Austin, TX, 78712, USA
SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2006), 47(1), 177-178
CODEN: ACPPAY; ISSN: 0032-3934
PB American Chemical Society, Division of Polymer Chemistry
DT Journal; (computer optical disk)
LA English
OS CASREACT 146:81990
AB Palladium and platinum polymeric bis-N-heterocyclic carbene complexes were prepared by metalation of benzo-, biphenyl- and dibenzodioxin-condensed bis-imidazolium salts. Condensation of Q(NH2)4 with HCO2H with subsequent alkylation by RBr afforded bis-imidazolium salts [(N+R:CHNR)Q(N+R:CHNR)]Br2 (2; Q = 1,2,4,5-benzenetetrayl, 1,1'-biphenyl-3,3',4,4'-tetrayl, [1,4]dibenzodioxin-2,3,7,8-tetrayl; R = Bu, PhCH2). Reaction of compds. 2 with Pd(OAc)2 or PtCl2 in DMSO at 110° gave the corresponding polymeric complexes with metal centers in main chain, [X2M:CN2R2QN2R2C:]n (3a-h, same Q, R, M). The chain length of 3a-h may be controlled by copolymn. of ligands 2 with MX2 and chain-transfer agents, e.g., 1,3-dibenzylbenzimidazolium bromide. 2-Hydroxyphenyl-substituted benzobis-imidazolium cations gave chelate C,O,C',O'-phenolato bis-carbene polymeric complexes with copper(II), nickel(II) and iron(II) centers.
IT 34294-67-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of bis-imidazolium precursors and carbene-terminated transition metal polymeric bis-N-heterocyclic carbene complexes)
RN 34294-67-2 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,3,7,8-tetramine (CA INDEX NAME)



RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

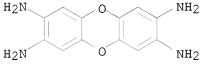
L6 ANSWER 4 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2005:921130 CAPLUS
DN 143:387483
TI A Modular Approach to Main-Chain Organometallic Polymers
AU Boydston, Andrew J.; Williams, Kyle A.; Bielawski, Christopher W.
CS Department of Chemistry and Biochemistry, The University of Texas at Austin, Austin, TX, 78712, USA
SO Journal of the American Chemical Society (2005), 127(36), 12496-12497
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 143:387483
AB A highly efficient route to a new class of organometallic polymers containing difunctional N-heterocyclic carbenes has been developed. Bis(imidazolium) halides and divalent group X metals were copolymd. to afford

organometallic polymers in up to quant. yields and with mol. wts. up to 106 Da, depending on the structure of the N-heterocyclic carbene and the incorporated transition metal. Enhanced solubilities were demonstrated through post-polymerization ligation with phosphines. Finally, selective end-group functionalization and excellent mol. weight control was achieved through the inclusion of monofunctional chain transfer agents during the polymerization

IT 16435-75-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and mol. weight of main-chain organometallic polymers by modular approach)

RN 16435-75-9 CAPLUS

CN Dibenzo[b,e][1,4]dioxin-2,3,7,8-tetramine, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

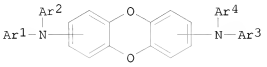
RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2005:823683 CAPLUS
DN 143:238789
TI Aminodibenzodioxin derivative and organic electroluminescent device using same
IN Kai, Takahiro; Sekiya, Hirokatsu; Miyazaki, Hiroshi; Ishikawa, Shigetaka
PA Nippon Steel Chemical Co., Ltd., Japan
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005075451	A1	20050818	WO 2005-JP1079	20050127

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,

MR, NE, SN, TD, TG
CN 1918141 A 20070221 CN 2005-80004456 20050127
US 20070129555 A1 20070607 US 2006-588373 20060802
PRAI JP 2004-32380 A 20040209
WO 2005-JP1079 W 20050127
OS MARPAT 143:238789
GI

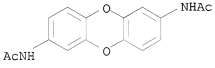


I

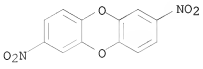
AB Disclosed is a highly reliable material for organic electroluminescent devices which has high luminance and high luminous efficiency, hardly deteriorates in emission, and is excellent in use and storage at high temps. Also disclosed is an organic electroluminescent device using such a material. The material for organic electroluminescent devices is a diaminodibenzodioxin derivative represented by the general formula I, and it can be included in a light-emitting layer, hole transport layer or hole injection layer of an organic electroluminescent device. In the formula, Ar1, Ar2, Ar3 and Ar4 resp. represent a substituted or unsubstituted aryl group. Incidentally, Ar1 and Ar2 as well as Ar3 and Ar4 may form a nitrogen-containing heterocyclic ring together with a nitrogen bonded thereto.

IT 52354-41-3P 71400-33-4P 71400-35-6P,
Dibenzo[b,e][1,4]dioxin-2,7-diamine 862600-33-7P
862600-34-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(aminodibenzodioxin derivative for organic electroluminescent device)

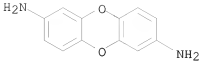
RN 52354-41-3 CAPLUS
CN Acetamide, N,N'-dibenzo[b,e][1,4]dioxin-2,7-diylbis- (CA INDEX NAME)



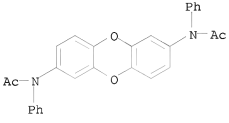
RN 71400-33-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



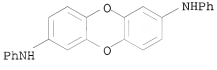
RN 71400-35-6 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine (CA INDEX NAME)



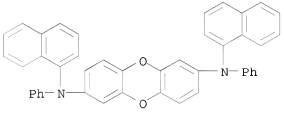
RN 862600-33-7 CAPLUS
CN Acetamide, N,N'-dibenzo[b,e][1,4]dioxin-2,7-diylbis[N-phenyl- (CA INDEX NAME)



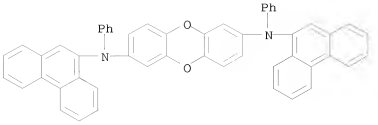
RN 862600-34-8 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-diphenyl- (CA INDEX NAME)



IT 862600-35-9P 862600-36-0P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(aminodibenzodioxin derivative for organic electroluminescent device)
RN 862600-35-9 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-1-naphthalenyl-N2,N7-diphenyl- (CA INDEX NAME)

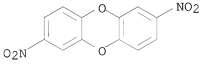


RN 862600-36-0 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-9-phenanthrenyl-N2,N7-diphenyl- (CA INDEX NAME)



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

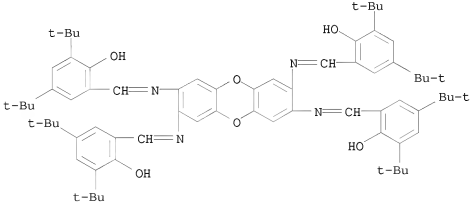
L6 ANSWER 6 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:205949 CAPLUS
DN 142:56201
TI Product class 2: 1,4-dioxins and benzo- and dibenzo-fused derivatives
AU Matsumoto, M.
CS Germany
SO Science of Synthesis (2004), 16, 15-38
CODEN: SSCYJ9
PB Georg Thieme Verlag
DT Journal; General Review
LA English
AB A review. Methods for preparing dioxin, benzodioxin and dibenzo-fused derivs. are reviewed including cyclization, aromatization, and substituent modification.
IT 71400-33-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of dioxin, benzodioxin and dibenzo-fused derivs. via cyclization, aromatization, and substituent modification)
RN 71400-33-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



RE.CNT 87 THERE ARE 87 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

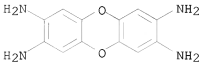
L6 ANSWER 7 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:100248 CAPLUS
DN 136:318347
TI The construction of (salophen)ruthenium(II) assemblies using axial coordination
AU Chichak, Kelly; Jacquemard, Ulrich; Branda, Neil R.
CS Department of Chemistry, University of Alberta, Edmonton, AB, T6G 2G2, Can.
SO European Journal of Inorganic Chemistry (2002), (2), 357-368
CODEN: EJICFO; ISSN: 1434-1948
PB Wiley-VCH Verlag GmbH

DT Journal
LA English
OS CASREACT 136:318347
AB Mononuclear and binuclear carbonylruthenium(II) complexes with N2O2 Schiff base ligands based on 3,5-di-tert-butylsalicylaldehyde and three different ortho-diamines were prepared The mononuclear Ru(BSP)(CO) [BSP = N,N'-bis(3,5-di-tert-butylsalicylidene)-1,2-phenylenediamine] complex (4) acts as a versatile supramol. synthon, as illustrated by the fact that it spontaneously forms linear and three-dimensional assemblies through axial coordination with pyridyl Lewis bases. Using this motif, neutral and charged assemblies with bipyridine (6), pyridylterpyridine (9) and quaterpyridine (12) were prepared The versatility of the salophen ligand was highlighted by the preparation of bimetallic carbonylruthenium(II) compds. 14-17 from 1,2,4,5-tetraaminobenzene and 2,3,7,8-tetraaminodibenzo-[1,4]dioxin. The bimetallic complexes were isolated as a mixture of cis and trans diastereomers with respect to the spatial relation between the two axially bound carbon monoxide ligands. The electronic spectral and electrochem. properties of the pyridyl adducts 5, 15, and 17 were compared. The properties of 17 closely resembled 5 due to the insulating effect of the extended central tetraamino fragment, while 15 behaved as a single, novel chromophore. The electrochem. studies revealed that the central tetraamino linker regulates the communication between the two metal centers of 15 and 17. The two metal atoms of 15 sense each other to a larger extent than those of 17.
IT 410525-84-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reactant for preparation of nickel and ruthenium tetrakis(salicylidene)tetraaminodibenzodioxin dinuclear complexes)
RN 410525-84-7 CAPLUS
CN Phenol, 2,2',2'',2'''-[dibenzo[b,e][1,4]dioxin-2,3,7,8-tetrayltetrakis(nitrilomethylidyne)]tetrakis[4,6-bis(1,1-dimethylethyl)-(9CI) (CA INDEX NAME)



IT 16435-75-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for preparation of tetrakis(salicylidene)tetraaminodibenzodioxin and its ruthenium and nickel dinuclear complexes)
RN 16435-75-9 CAPLUS

CN Dibenzo[b,e][1,4]dioxin-2,3,7,8-tetramine, tetrahydrochloride (9CI) (CA INDEX NAME)



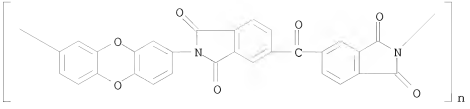
●4 HCl

RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1999:113925 CAPLUS
DN 130:182902
TI Thianthrene polymers for application in optical devices, particularly in electroluminescence elements, and their manufacture
IN Janietz, Silvia; Wedel, Armin; Friedrich, Reiner
PA Fraunhofer-Gesellschaft zur Foerderung der angewandten Forschung e.V., Germany
SO Ger. Offen., 17 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 19733882	A1	19990211	DE 1997-19733882	19970805
DE 19733882	C2	20021114		
PRAI DE 1997-19733882		19970805		

AB The polymers have thianthrenediyl units alternating with certain other specified types of repeating units. Thus, equimolar amts. of 2,5-dihexyl-1,4-benzenediboronic acid and dibromothianthrene were heated in refluxing toluene containing Na2CO3 and Pd(PPh3)4 for 120 h to give a polymer with weight-average mol. weight 1.7 + 104.
IT 71402-46-5P, 2,7-Diaminothianthrene-pyromellitic dianhydride copolymer, SRU
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(thianthrene polymers for electroluminescent elements)
RN 71402-46-5 CAPLUS
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)dibenzo[b,e][1,4]dioxin-2,8-diyl] (9CI) (CA INDEX NAME)



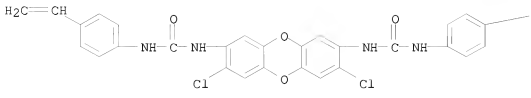
L6 ANSWER 9 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1998:814063 CAPLUS
DN 130:139842
TI A Novel Approach to the Molecular Imprinting of Polychlorinated Aromatic Compounds
AU Luebke, Markus; Whitcombe, Michael J.; Vulfson, Evgeny N.
CS FMS Department, Institute of Food Research, Reading Berkshire, RG6 6BZ, UK
SO Journal of the American Chemical Society (1998), 120(51), 13342-13348
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
AB The aim of this investigation was to determine whether relatively weak interactions, such as hydrogen bonds to aromatic chlorine atoms and interactions involving aromatic π electrons could be exploited within artificial receptors, constructed using the technique of mol. imprinting. For the purposes of this investigation we chose 2,3,7,8-tetrachlorodibenzodioxin (TCDD) as the model target. Imprinted polymers have been prepared with two new templates designed to create recognition sites for TCDD. The first of these, the bis-N-(4-vinylphenyl)urea derivative of 2,8-dichloro-3,7-diaminodibenzodioxin, employed a carbonyl spacer to introduce aromatic amines into the polymer after reductive cleavage of the template. The second, N-(2-(3,7,8-trichlorodibenzodioxinyl))-2-methacryloyloxybenzamide, incorporated a salicylic acid spacer and introduced a methacrylic acid residue into the polymer following hydrolysis. Both amine and acid groups were positioned in such a way as to interact with TCDD through the formation of weak hydrogen bonds to aromatic chlorine atoms. A second recognition element was introduced into the binding sites by the inclusion of a polymerizable, electron-rich, aromatic ether capable of forming π-π interactions with the electron-deficient dioxin mol. Polymers imprinted with either template showed significantly higher uptake of TCDD than the corresponding nonimprinted controls, even at concns. as low as 2 nM.
IT 219950-97-7DP, hydrolyzed
RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(crosslinked diurea template polymer; novel approach to mol. imprinting of polychlorinated aromatic compds.)
RN 219950-97-7 CAPLUS
CN Urea, N,N''-(3,7-dichlorodibenzo[b,e][1,4]-dioxin-2,8-diyl)bis[N'-(4-ethenylphenyl)-, polymer with diethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 219950-93-3

CMF C30 H22 Cl2 N4 O4

PAGE 1-A



PAGE 1-B

CM 2

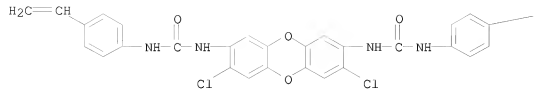
CRN 1321-74-0
CMF C10 H10
CCI IDS

IT 219950-99-9DP, hydrolyzed 220006-71-3DP, hydrolyzed
RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(imprinted polymers; novel approach to mol. imprinting of polychlorinated aromatic compds.)
RN 219950-99-9 CAPLUS
CN Urea, N,N''-(3,7-dichlorodibenzo[b,e][1,4]dioxin-2,8-diyl)bis[N'-(4-ethenylphenyl)-, polymer with diethenylbenzene and ethenylpentafluorobenzene (9CI) (CA INDEX NAME)

CM 1

CRN 219950-93-3
CMF C30 H22 Cl2 N4 O4

PAGE 1-A



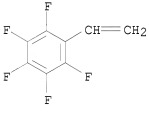
PAGE 1-B

CM 2

CRN 1321-74-0
CMF C10 H10
CCI IDS

CM 3

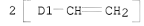
CRN 653-34-9
CMF C8 H3 F5

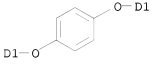


RN 220006-71-3 CAPLUS
CN Urea, N,N''-(3,7-dichlorodibenzo[b,e][1,4]dioxin-2,8-diyl)bis[N'-(4-ethenylphenyl)-, polymer with 1,4-bis(ethenylphenoxy)benzene and diethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 220006-68-8
CMF C22 H18 O2
CCI IDS

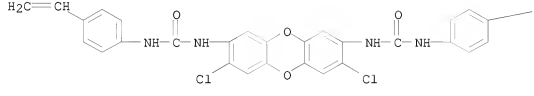




CM 2

CRN 219950-93-3
CMF C30 H22 C12 N4 O4

PAGE 1-A



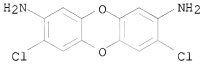
PAGE 1-B

CM 3

CRN 1321-74-0
CMF C10 H10
CCI IDS

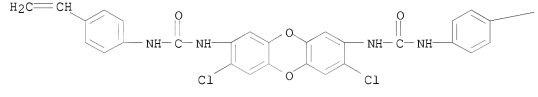
2 D1—CH=CH2

IT 219950-91-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(starting material; novel approach to mol. imprinting of polychlorinated aromatic compds.)
RN 219950-91-1 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,8-diamine, 3,7-dichloro- (CA INDEX NAME)



IT 219950-93-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(template; novel approach to mol. imprinting of polychlorinated aromatic compds.)
RN 219950-93-3 CAPLUS
CN Urea, N,N''-(3,7-dichlorodibenzo[b,e][1,4]dioxin-2,8-diyl)bis[N'-(4-ethenylphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

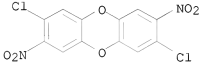


PAGE 1-B

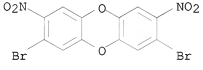
RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 10 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1995:400788 CAPLUS

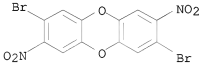
DN 123:9396
OREF 123:1975a,1978a
TI Dibenzo-p-dioxins. II. Electrophilic substitution reactions
AU K?ntsevich, A. D.; Golovkov, V. F.; Ivanov, K. N.; Chernov, S. A.
CS Tsentr. Ekotoksimetrii, Ross. Akad. Nauk, Moscow, Russia
SO Zhurnal Obshchei Khimii (1994), 64(10), 1722-8
CODEN: ZOKHA4; ISSN: 0044-460X
PB Nauka
DT Journal
LA Russian
AB Electrophilic nitration, acylation, sulfonation, and chlorosulfonation of halogenated dibenzo-p-dioxins were studied.
IT 71721-79-4P 104294-07-7P 163557-93-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 71721-79-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dichloro-3,8-dinitro- (CA INDEX NAME)



RN 104294-07-7 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,8-dibromo-3,7-dinitro- (CA INDEX NAME)

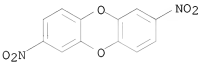


RN 163557-93-5 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dibromo-3,8-dinitro- (CA INDEX NAME)

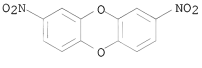


L6 ANSWER 11 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1994:263496 CAPLUS
DN 120:263496
OREF 120:46497a,46500a
TI Mutagenicity and metabolic activation of nitrodibenzofurans and nitrodibenzo-p-dioxins
AU Watanabe, T.; Kaji, H.; Kasai, T.; Hirayama, T.
CS Kyoto Pharm. Univ., Kyoto, 607, Japan

SO Hen'igensei Shiken (1993), 2(4), 226-33
CODEN: HESHEI; ISSN: 0917-5768
DT Journal
LA Japanese
AB Nitrated dibenzofurans (NDFs) and dibenzo-p-dioxins (NDDs) were tested for their mutagenicity by using Salmonella tester strains with or without S9 mix which was prepared from rats pretreated with inducers or unpretreated rats. The order of mutagenic activity of NDFs and NDDs in strain TA98 was 2,7- = 2,8- > 3- > 2- > 4- > 1-NDF and 2,7- > 2,8- > 2-NDD without S9 mix. In the presence of S9 mix, both NDFs and NDDs exhibited mutagenic potency in strain TA98NR and the most potent effects were observed with the S9 mix which was prepared from rats pretreated with 3-methylcholanthrene (3-MC). The mutagenic potency of 2-, 4-, 2,7-, and 2,8-NDF in strain TA98NR with 3-MC-S9 mix was nearly equal or 2-10 times higher than those in strain TA98 without S9 mix.
IT 71400-33-4, 2,7-Dinitrodibenzo-p-dioxin 71400-34-5, 2,8-Dinitrodibenzo-p-dioxin
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(mutagenicity of, in Ames test, metabolic activation effect on)
RN 71400-33-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



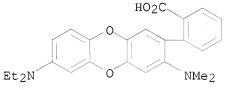
RN 71400-34-5 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,8-dinitro- (CA INDEX NAME)



L6 ANSWER 12 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1994:65544 CAPLUS
DN 120:65544
OREF 120:11657a,11660a
TI Organic thin-film electroluminescent device
IN Utsuki, Koji; Nagahata, Emi
PA Nippon Electric Co, Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05078655	A	19930330	JP 1990-340900	19901130
	JP 3005909	B2	20000207		

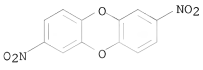
PRAI JP 1989-318797 A1 19891211
JP 1989-331066 A1 19891222
JP 1990-160117 A1 19900619
JP 1990-279183 A1 19901019
JP 1990-306556 A1 19901113
OS MARPAT 120:65544
AB The device comprises: a phosphor comprising a pyrene, a coumarin, a cyanine, a xanthene, and/or a pyrylium derivative; and an electron-transport layer containing a tert. diamine, a phthalocyanine, a naphthalimide, a quinolynol metal complex, a stylyl, a diphenoquinone, and/or a 3,9-perylenedicarbonic acid ester derivative 16 Markush structures are claimed.
IT 152264-15-8
RL: PRP (Properties)
(electron transporters from, in electroluminescent devices)
RN 152264-15-8 CAPLUS
CN Benzoic acid, 2-[7-(diethylamino)-3-(dimethylamino)dibenzo[b,e][1,4]dioxin-2-yl]-, hydrochloride (1:1) (CA INDEX NAME)



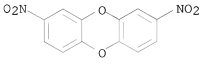
● HCl

L6 ANSWER 13 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1992:464583 CAPLUS
DN 117:64583
OREF 117:11243a,11246a
TI Mutagenicity of the reaction products of dibenzo-p-dioxin with nitrogen oxides
AU Watanabe, Tetsushi; Kusumoto, Masanori; Ikeda, Miho; Hirayama, Teruhisa
CS Kyoto Pharm. Univ., Kyoto, 607, Japan
SO Mutation Research Letters (1992), 281(4), 247-54
CODEN: MRLEDH; ISSN: 0165-7992
DT Journal
LA English
AB Dibenzo-p-dioxin (DD) was made to react with various concns. of nitrogen oxides in the dark. The mutagenicities of the reaction products were tested using Salmonella typhimurium strains TA98, TA100, TA98NR and TA98/1,8-DNP6 in the presence or absence of a mammalian metabolic activation system (S9 mix). DD-NOx (molar ratios 1:3, 1:6 and 1:18) reaction products exhibited mutagenic potency in strains TA98 and TA98/1,8-DNP6 without S9 mix. In a gas chromatog./mass spectrometry study, 2-nitrodibenzo-p-dioxin (NDD) was identified with authentic sample in the mutagenic reaction products. DD-NOx (1:18) reaction products were reduced by NaSH and the reduction mixture was analyzed by HPLC. 2,7-Dinitrodibenzo-p-dioxin (DNDD) and 2,8-DNDD were identified as

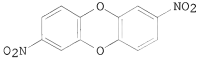
corresponding diamino-DDs in the reduction mixture 2-NDD, 2,7-DNDD and 2,8-DNDD
were also mutagenic in strains TA98 and TA98/1,8-DNP6 without S9 mix and the mutagenicity of DD-NOx reaction products were largely accounted for by the nitro-DDs.
IT 71400-33-4P 71400-34-5P, 2,8-Dinitro-dibenzo-p-dioxin
RL: ADV (Adverse effect, including toxicity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and mutagenicity of)
RN 71400-33-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



RN 71400-34-5 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,8-dinitro- (CA INDEX NAME)



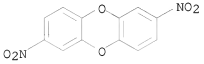
L6 ANSWER 14 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1985:405771 CAPLUS
DN 103:5771
OREF 103:1039a,1042a
TI Nitronium cation as electron acceptor in the reaction of 2,7-dinitrodibenzo-1,4-dioxin with nitric acid
AU Morkovnik, A. S.
CS Rostov. Gos. Univ., Rostov, 344090, USSR
SO Khimiya Geterotsiklicheskikh Soedinenii (1985), (2), 274-5
CODEN: KGSSAQ; ISSN: 0453-8234
DT Journal
LA Russian
GI



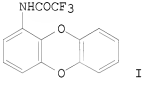
I

AB The reaction of the title compound (I) with NO2+ in H2SO4 gave the cation radical of I and NO2•, which reacted with H+ to form NO2+, NO+, and H2O.
IT 71400-33-4

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with nitronium ion)
RN 71400-33-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)

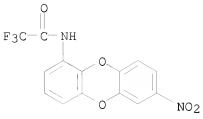


L6 ANSWER 15 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1985:62158 CAPLUS
DN 102:62158
OREF 102:9749a,9752a
TI Nitrations of acylamino- and nitrodibenzo-p-dioxins
AU Oliver, James E.
CS Pest. Degrad. Lab., Agric. Environ. Qual. Inst., Beltsville, MD, 20705, USA
SO Journal of Heterocyclic Chemistry (1984), 21(4), 1073-80
CODEN: JHTCAD; ISSN: 0022-152X
DT Journal
LA English
OS CASREACT 102:62158
GI

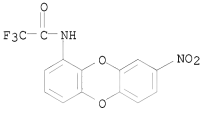


I

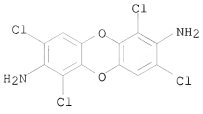
AB Nitrations of 1- or 2-acylamino (and nitro) dibenzo-p-dioxins were employed to achieve regioselective further functionalization of these compds. The choice of nitrating conditions and/or acyl substituent (CH3CO vs. CF3CO) often dictated into which ring the first nitro group was directed. In almost all cases, nitrations at the 2,3,7,8-positions were highly favored over nitrations at the 1,4,6,9-positions; with NH4NO3/CF3CO2H in THF, however, nitration of 1-(trifluoroacetylamino)dibenzo-p-dioxin (I) proceeded predominantly at the 4-position.
IT 94514-55-3P 94514-56-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 94514-55-3 CAPLUS
CN Acetamide, 2,2,2-trifluoro-N-(7-nitrodibenzo[b,e][1,4]dioxin-1-yl)- (CA INDEX NAME)



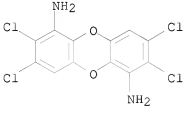
RN 94514-56-4 CAPLUS
CN Acetamide, 2,2,2-trifluoro-N-(8-nitrodibenzo[b,e][1,4]dioxin-1-yl)- (CA INDEX NAME)



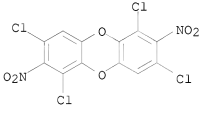
L6 ANSWER 16 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1984:139046 CAPLUS
DN 100:139046
OREF 100:21219a,21222a
TI Nitration of two TCDD's and their conversion to 1,2,3,6,7,8-HCDD
AU Oliver, James E.; Ruth, John M.
CS Pesticide Degradation Lab., USDA, Beltsville, MD, 20705, USA
SO Chemosphere (1983), 12(11-12), 1497-503
CODEN: CMSHAF; ISSN: 0045-6535
DT Journal
LA English
OS CASREACT 100:139046
AB Two regioselective synthetic routes to 1,2,3,6,7,8-hexachlorodibenzo-p-dioxin have been developed. They consist of dinitration of 1,3,6,8- and 2,3,7,8-tetrachlorodibenzo-p-dioxin resp. followed by reduction and a Sandmeyer reaction.
IT 89422-75-3P 89422-76-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and Sandmeyer reaction of)
RN 89422-75-3 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, 1,3,6,8-tetrachloro- (CA INDEX NAME)



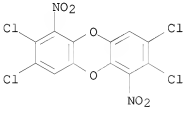
RN 89422-76-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-1,6-diamine, 2,3,7,8-tetrachloro- (CA INDEX NAME)



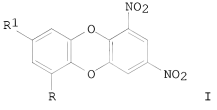
IT 89422-73-1P 89422-74-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)
RN 89422-73-1 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 1,3,6,8-tetrachloro-2,7-dinitro- (CA INDEX NAME)



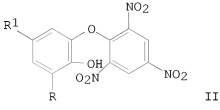
RN 89422-74-2 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetrachloro-1,6-dinitro- (CA INDEX NAME)



L6 ANSWER 17 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1983:198122 CAPLUS
DN 98:198122
OREF 98:30115a,30118a
TI X-ray diffraction study of the structure of trinitrodibenzo-p-dioxins, formed during cyclization of monopicryl ethers of isomeric nitropyrocatechols
AU Yufit, D. S.; Struchkov, Yu. T.; Knyazev, V. N.; Mozhaeva, T. Ya.; Drozd, V. N.
CS Inst. Elementoorg. Soedin., Moscow, USSR
SO Zhurnal Obshchei Khimii (1983), 53(2), 451-5
CODEN: ZOKHA4; ISSN: 0044-460X
DT Journal
LA Russian
GI

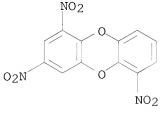


I

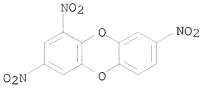


II

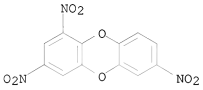
AB The geometry of dibenzo-p-dioxins I (R = NO2, R1 = H; R = H, R1 = NO2), formed by intramol. cyclocondensation of II, was confirmed by x-ray diffraction data on bond lengths and bond angles.
IT 83429-19-0P 83429-20-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and x-ray diffraction studies of)
RN 83429-19-0 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 1,3,6-trinitro- (CA INDEX NAME)



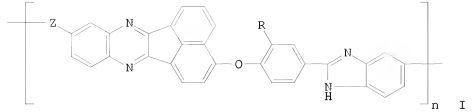
RN 83429-20-3 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 1,3,8-trinitro- (CA INDEX NAME)



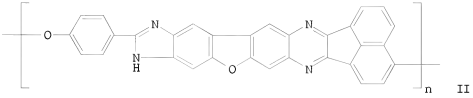
IT 83429-21-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 83429-21-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 1,3,7-trinitro- (CA INDEX NAME)



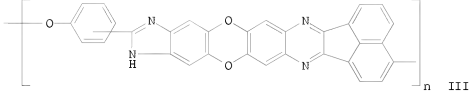
L6 ANSWER 18 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1983:35048 CAPLUS
DN 98:35048
OREF 98:5495a,5498a
TI Synthesis and properties of poly(quinoxaline benzimidazoles) based on esters of acenaphthenequinone-4-oxyphenylcarboxylic acids
AU Perepechkina, E. P.; Bogdanov. M. N.; Romanova, T. A.; Kudryavtsev, G. I.
CS Nauchno-Proizvod. Ob'edin. "Khimvolokno", Moscow, USSR
SO Vysokomolekulyarnye Soedineniya, Seriya B: Kratkie Soobshcheniya (1982), 24(9), 672-4
CODEN: VYSBAI; ISSN: 0507-5483
DT Journal
LA Russian
GI



I



II



III

AB The Et and Ph esters of acenaphthenequinone-4-oxyphenylcarboxylic acids were prepared and polycondensed with tetraamines to obtain I (R = H or Br; Z = O or SO2), II, and III having initial oxidative degradation temperature 460-530° and 20% weight-loss temperature 540-600°. I (R = H) and p-III formed films and fibers and I (R = Br, Z = O) [84101-11-1] gave fire-resistant films. The polycondensation was started at 100-110° and continued at 150-160° to prevent crosslinking.

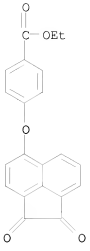
IT 84101-09-7P 84101-13-3P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of)

RN 84101-09-7 CAPLUS

CN Benzoic acid, 4-[(1,2-dihydro-1,2-dioxo-5-acenaphthylenyl)oxy]-, ethyl ester, polymer with dibenzo[b,e][1,4]dioxin-2,3,7,8-tetramine (9CI) (CA INDEX NAME)

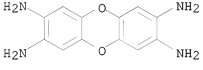
CM 1

CRN 84101-06-4
CMF C21 H14 O5



CM 2

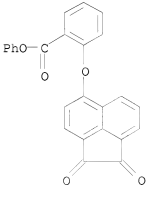
CRN 34294-67-2
CMF C12 H12 N4 O2



RN 84101-13-3 CAPLUS
CN Benzoic acid, 2-[(1,2-dihydro-1,2-dioxo-5-acenaphthylenyl)oxy]-, phenyl ester, polymer with dibenzo[b,e][1,4]dioxin-2,3,7,8-tetramine (9CI) (CA INDEX NAME)

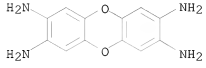
CM 1

CRN 84101-12-2
CMF C25 H14 O5

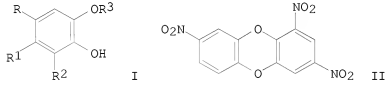


CM 2

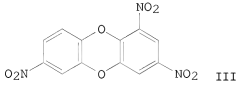
CRN 34294-67-2
CMF C12 H12 N4 O2



L6 ANSWER 19 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1982:581852 CAPLUS
DN 97:181852
OREF 97:30409a,30412a
TI Meisenheimer spirocyclic complexes. XVI. Effect of a nitro group as a substituent in the pyrocatechol ring on cyclization of polynitrophenyl ethers of pyrocatechol to diphenylene dioxides
AU Knyazev, V. N.; Drozd, V. N.; Mozhaeva, T. Ya.
CS Mosk. S-kh. Akad., Moscow, USSR
SO Zhurnal Organicheskoi Khimii (1982), 18(8), 1683-91
CODEN: ZORKAE; ISSN: 0514-7492
DT Journal
LA Russian
OS CASREACT 97:181852
GI



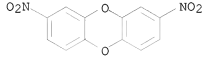
I II



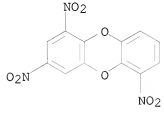
III

AB I [R, R1, R2 = H, H, NO2 (Ia); NO2, H, H (Ib); H, H, H; Cl, Cl, H; NO2, H, NO2; R3 = picryl throughout] were prepared and their reverse Smiles rearrangement behavior was studied. E.g., Ia and Et3N gave only 1,3,6-trinitrodiphenylene dioxide, but Ib gave the 1,3,7- and 1,3,8-isomers (II, III) in 1:2 ratio.
IT 71400-34-5P 83429-19-0P 83429-20-3P

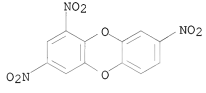
83429-21-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 71400-34-5 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,8-dinitro- (CA INDEX NAME)



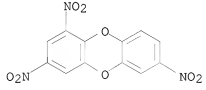
RN 83429-19-0 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 1,3,6-trinitro- (CA INDEX NAME)



RN 83429-20-3 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 1,3,8-trinitro- (CA INDEX NAME)

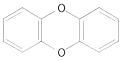


RN 83429-21-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 1,3,7-trinitro- (CA INDEX NAME)



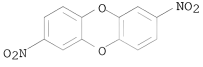
L6 ANSWER 20 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1982:180370 CAPLUS
DN 96:180370
OREF 96:29715a,29718a

TI Electron transfer as an elementary stage of the electrophilic nitration of dibenzo-p-dioxin
AU Morkovnik, A. S.; Belinskii, E. Yu.; Dobaeva, N. M.; Okhlobystin, O. Yu.
CS Nauchno-Issled. Inst. Fiz. Org. Khim., Rostov. Gos. Univ., Rostov, USSR
SO Zhurnal Organicheskoi Khimii (1982), 18(2), 378-86
CODEN: ZORKAE; ISSN: 0514-7492
DT Journal
LA Russian
GI

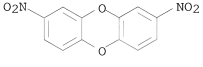


I

AB The nitration of I by HNO3 was studied by ESR and electronic spectroscopy in CF3CO2H. When I was in excess, its cation radical was formed along with dinitrobenzo-p-dioxins (II). When HNO3 was in excess, only II were formed. A 1-electron oxidation step was proposed for the nitration process.
IT 71400-33-4P 71400-34-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 71400-33-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)

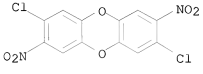


RN 71400-34-5 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,8-dinitro- (CA INDEX NAME)

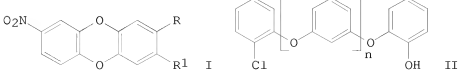


L6 ANSWER 21 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1982:117026 CAPLUS
DN 96:117026
OREF 96:19134h,19135a
TI Structural factors affecting aryl hydrocarbon hydroxylase induction by dibenzo-p-dioxins and dibenzofurans
AU Cheney, B. Vernon
CS Res. Lab., Upjohn Co., Kalamazoo, MI, 49001, USA
SO International Journal of Quantum Chemistry (1982), 21(2), 445-63
CODEN: IJQCB2; ISSN: 0020-7608

DT Journal
LA English
AB Quant. structure-activity relationships were developed to rationalize the exptl. data obtained with a series of dibenzo-p-dioxins and dibenzofurans in the assays for receptor binding and aryl hydrocarbon hydroxylase (AHH) [9037-52-9] induction. Lateral substituents (in positions 2, 3, 7, and 8 of the tricyclic system) do not affect receptor binding and AHH induction in the same manner. Various hypotheses are suggested to explain this finding. Of special interest is the possibility that the lateral substituents are directly involved in the mechanism which transforms the receptor to the active state. The implications of this possibility are considered with regard to the design of an antidote for poisoning caused by the chlorinated congeners which occur as contaminants in certain com. products.
IT 71721-79-4
RL: BIOL (Biological study)
(aryl hydrocarbon hydroxylase of liver response to, binding to liver in relation to)
RN 71721-79-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dichloro-3,8-dinitro- (CA INDEX NAME)



L6 ANSWER 22 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1981:603847 CAPLUS
DN 95:203847
OREF 95:34064h,34065a
TI The Smiles rearrangement of 2-aryloxy-5-nitrophenoxides. Attempted routes to benzoxirens and tribenzo[b,e,h]trioxonins
AU Ramsden, Christopher A.
CS Sch. Chem. Sci., Univ. East Anglia, Norwich, NR4 7TJ, UK
SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1981), (9), 2456-63
CODEN: JCPRB4; ISSN: 0300-922X
DT Journal
LA English
OS CASREACT 95:203847
GI

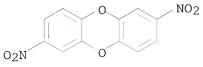


Page 64

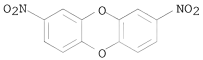
AB Self-condensation (150°, DMF) of KOC6H3BrNO2-2,5 gave a mixture of the dioxins I (R ≠ R1 = H, NO2) via Smiles rearrangement of the intermediate (nitrophenoxy)nitrophenoxide. Smiles rearrangement of other (aryloxy)nitrophenoxides is also reported. An attempted synthesis of trioxonins gave linear products. E.g., thermal condensation of 2-ClC6H4OH (K2CO3, Cu powder, 170-200°, 6 h) gave 11% dibenzo-p-dioxin, 40% phenol II (n = 1) and 2% II (n = 4).

IT 71400-33-4P 71400-34-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reactions of, with alkoxides)

RN 71400-33-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



RN 71400-34-5 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,8-dinitro- (CA INDEX NAME)



L6 ANSWER 23 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1981:569850 CAPLUS
DN 95:169850
OREF 95:28417a,28420a
TI Aliphatic polyamides containing tricyclic fused rings
AU Niume, Kazuma; Toda, Fujio; Uno, Keikichi; Hasegawa, M.; Iwakura, Y.
CS Fac. Eng., Univ. Tokyo, Hongo, 113, Japan
SO Makromolekulare Chemie (1981), 182(9), 2399-407
CODEN: MACEAK; ISSN: 0025-116X
DT Journal
LA English
AB Polyamides containing thianthrene, phenoxathiin, and dibenzo-p-dioxin units were prepared from the corresponding diamines and adipyl or sebacyl chlorides by solution polymerization at low temperature The polyamides had good thermal stability and solubility Thermal stability increased in the order thianthrene < phenoxathin < dibenzo-p-dioxin. Glass transition temps. were estimated by thermomech. anal. and from temperature-resistivity curves. Polyamides derived from 2,8-tricyclic diamines showed somewhat lower glass transition temps. than those from 2,7-diamines.

IT 79637-32-4P 79637-33-5P 79637-34-6P
79637-35-7P 79637-54-0P 79637-55-1P
79637-56-2P 79637-57-3P

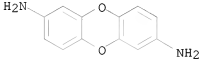
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal properties of)

RN 79637-32-4 CAPLUS

CN Hexanedioyl dichloride, polymer with dibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

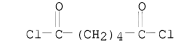
CM 1

CRN 71400-35-6
CMF C12 H10 N2 O2



CM 2

CRN 111-50-2
CMF C6 H8 Cl2 O2

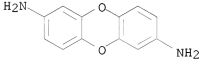


RN 79637-33-5 CAPLUS

CN Decanedioyl dichloride, polymer with dibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

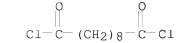
CM 1

CRN 71400-35-6
CMF C12 H10 N2 O2



CM 2

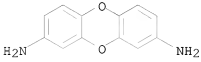
CRN 111-19-3
CMF C10 H16 Cl2 O2



RN 79637-34-6 CAPLUS
CN Hexanedioyl dichloride, polymer with dibenzo[b,e][1,4]dioxin-2,8-diamine (9CI) (CA INDEX NAME)

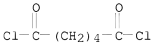
CM 1

CRN 71400-36-7
CMF C12 H10 N2 O2



CM 2

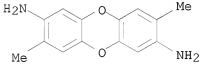
CRN 111-50-2
CMF C6 H8 Cl2 O2



RN 79637-35-7 CAPLUS
CN Hexanedioyl dichloride, polymer with 3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

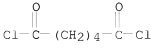
CM 1

CRN 71400-30-1
CMF C14 H14 N2 O2

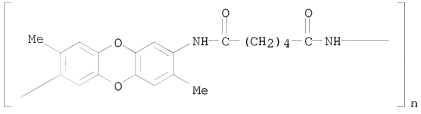


CM 2

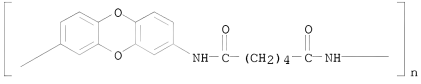
CRN 111-50-2
CMF C6 H8 Cl2 O2



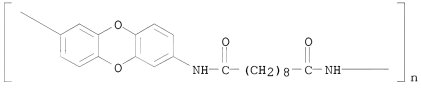
RN 79637-54-0 CAPLUS
CN Poly[(3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diyl)imino(1,6-dioxo-1,6-hexanediyl)imino] (9CI) (CA INDEX NAME)



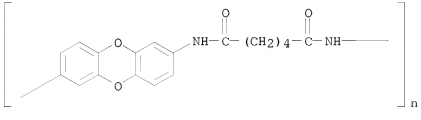
RN 79637-55-1 CAPLUS
CN Poly[dibenzo[b,e][1,4]dioxin-2,8-diylimino(1,6-dioxo-1,6-hexanediyl)imino] (9CI) (CA INDEX NAME)



RN 79637-56-2 CAPLUS
CN Poly[dibenzo[b,e][1,4]dioxin-2,7-diylimino(1,10-dioxo-1,10-decanediyl)imino] (9CI) (CA INDEX NAME)



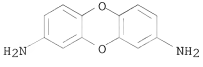
RN 79637-57-3 CAPLUS
CN Poly[dibenzo[b,e][1,4]dioxin-2,7-diylimino(1,6-dioxo-1,6-hexanediyl)imino] (9CI) (CA INDEX NAME)



L6 ANSWER 24 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1981:551257 CAPLUS
DN 95:151257
OREF 95:25337a,25340a
TI Thermal and electrical properties of polyimides containing tricyclic fused rings
AU Niume, K.; Hirohashi, R.; Toda, F.; Hasegawa, M.; Iwakura, Y.
CS Dep. Synth. Chem., Univ. Tokyo, Tokyo, 113, Japan
SO Polymer (1981), 22(5), 649-54
CODEN: POLMAG; ISSN: 0032-3861
DT Journal
LA English
AB Sixteen polyimides containing a series of tricyclic fused rings were prepared by polymerization of the corresponding diamines with pyromellitic or benzophenonetetracarboxylic dianhydride, and their thermal and elec. properties were investigated. The thermal stability of the polymers increased in the order of those containing the groups thianthrene (I) < phenoxathiin (II) < dibenzo-p-dioxin (III). The polymers derived from 2,8-oriented tricyclic diamines had lower glass temps. than those derived from 2,7-oriented ones. The sp. resistivity of the polyimides decreased in the order I- > III- > II-containing polymers. The kink temps. in the temperature-dependence curves of sp. resistivity agreed with the glass temps. The photoconductive properties of the polymers were determined using a surface-type cell method. The photocurrent of the polyimides decreased in the order II- > III- > I-containing polymers. The ratio of the photo- to dark-current was 2-5.
IT 71402-28-3P 71402-29-4P 71402-30-7P
71402-31-8P 71402-32-9P 71402-33-0P
71402-46-5P 71402-47-6P 71402-48-7P
71402-49-8P 71402-50-1P 71402-51-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal and elec. properties of)
RN 71402-28-3 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-carbonylbis-, polymer with dibenzo[b,e][1,4]dioxin-2,8-diamine (9CI) (CA INDEX NAME)

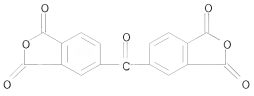
CM 1

CRN 71400-36-7
CMF C12 H10 N2 O2



CM 2

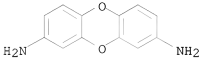
CRN 2421-28-5
CMF C17 H6 O7



RN 71402-29-4 CAPLUS
CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with dibenzo[b,e][1,4]dioxin-2,8-diamine (9CI) (CA INDEX NAME)

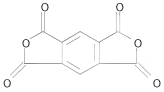
CM 1

CRN 71400-36-7
CMF C12 H10 N2 O2



CM 2

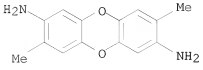
CRN 89-32-7
CMF C10 H2 O6



RN 71402-30-7 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-carbonylbis-, polymer with 3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

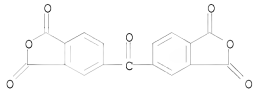
CM 1

CRN 71400-30-1
CMF C14 H14 N2 O2



CM 2

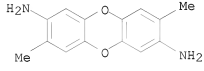
CRN 2421-28-5
CMF C17 H6 O7



RN 71402-31-8 CAPLUS
CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with 3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

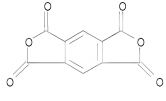
CM 1

CRN 71400-30-1
CMF C14 H14 N2 O2



CM 2

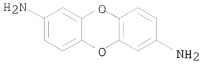
CRN 89-32-7
CMF C10 H2 O6



RN 71402-32-9 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-carbonylbis-, polymer with dibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

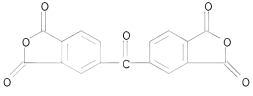
CM 1

CRN 71400-35-6
CMF C12 H10 N2 O2



CM 2

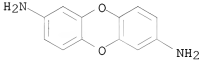
CRN 2421-28-5
CMF C17 H6 O7



RN 71402-33-0 CAPLUS
CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with dibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

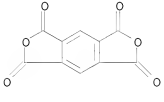
CM 1

CRN 71400-35-6
CMF C12 H10 N2 O2



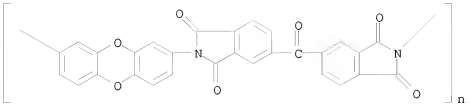
CM 2

CRN 89-32-7
CMF C10 H2 O6

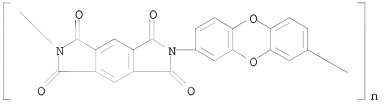


RN 71402-46-5 CAPLUS
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)dibenzo[b,e][1,4]dioxin-2,8-diyl] (9CI) (CA

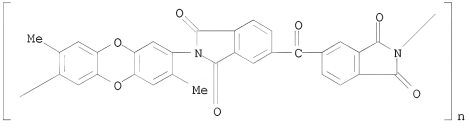
INDEX NAME)



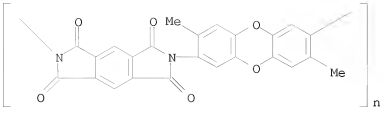
RN 71402-47-6 CAPLUS
CN Poly[(5,7-dihydro-1,3,5,7-tetraoxobenzo[1,2-c:4,5-c']dipyrrole-2,6(1H,3H)-diyl)dibenzo[b,e][1,4]dioxin-2,8-diyl] (9CI) (CA INDEX NAME)



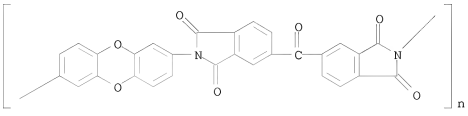
RN 71402-48-7 CAPLUS
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diyl)] (9CI) (CA INDEX NAME)



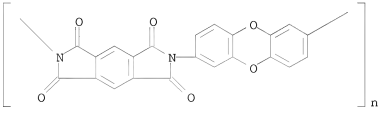
RN 71402-49-8 CAPLUS
CN Poly[(5,7-dihydro-1,3,5,7-tetraoxobenzo[1,2-c:4,5-c']dipyrrole-2,6(1H,3H)-diyl)(3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diyl)] (9CI) (CA INDEX NAME)



RN 71402-50-1 CAPLUS
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)dibenzo[b,e][1,4]dioxin-2,7-diyl] (9CI) (CA INDEX NAME)



RN 71402-51-2 CAPLUS
CN Poly[(5,7-dihydro-1,3,5,7-tetraoxobenzo[1,2-c:4,5-c']dipyrrole-2,6(1H,3H)-diyl)dibenzo[b,e][1,4]dioxin-2,7-diyl] (9CI) (CA INDEX NAME)



L6 ANSWER 25 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1981:16960 CAPLUS
DN 94:16960
OREF 94:2839a,2842a
TI Synthesis and properties of fiber-forming poly(quinoxalinebenzimidazobenzo phenanthrolines)
AU Perepechkina, E. P.; Ivanova, T. I.; Romanova, T. A.; Bogdanov, M. N.; Kudryavtsev, G. I.
CS USSR
SO Khimicheskie Volokna (1980), (5), 18-20
CODEN: KVLKA4; ISSN: 0023-1118
DT Journal
LA Russian
AB Polyquinoxaline fibers with increased thermal stability are prepared on

introduction of other heterocyclic groups into the polymer chain. The benzimidazole and benzophenanthroline group-containing polyquinoxalines were prepared in a 2-stage process by polymerization of aromatic tetramines with aromatic tetraketones in the 1st stage, followed by the reaction of the formed oligomer with 1,4,5,8-naphthalenetetracarboxylic acid in the 2nd stage, at 130-5 and 100-70°, resp. The structure of the formed heterocyclic polymers was confirmed by IR spectroscopy. The presence of O bridges in the polymer components increased the degradation rate of the polymers. Fibers with the highest thermal stability were prepared from polymers having the most rigid chain and containing no bridging groups.

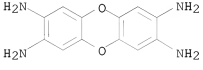
IT 76067-41-9P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(fibers, preparation and properties of)

RN 76067-41-9 CAPLUS

CN Ethanedione, 1,1'-(1,4-phenylene)bis[2-phenyl-, polymer with dibenzo[b,e][1,4]dioxin-2,3,7,8-tetramine tetrahydrochloride (9CI) (CA INDEX NAME)

CM 1

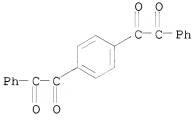
CRN 16435-75-9
CMF C12 H12 N4 O2 . 4 Cl H



●4 HCl

CM 2

CRN 3363-97-1
CMF C22 H14 O4

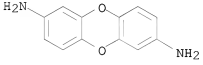


L6 ANSWER 26 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1980:532852 CAPLUS

DN 93:132852
OREF 93:21203a,21206a
TI Heat-resistant polymers with thianthrene analog units. II. Aromatic polyamides
AU Niume, K.; Nakamichi, K.; Toda, F.; Uno, K.; Hasegawa, M.; Iwakura, Y.
CS Fac. Eng., Univ. Tokyo, Tokyo, 113, Japan
SO Journal of Polymer Science, Polymer Chemistry Edition (1980), 18(7), 2163-74
CODEN: JPLCAT; ISSN: 0360-6376
DT Journal
LA English
AB Polyamides containing thianthrene, phenoxathiin, and dibenzo-p-dioxin units were prepared by solution polymerization of the reqired 2,7- and 2,8-diamines with m- or p-C6H4(COCl)2 at low temperature The amorphous polyisophthalamides were highly soluble in polar organic solvents; some of the polyterephthalamides with a fair degree of crystallinity were insol. Solubility increased in the order dibenzodioxin < phenoxathiin < thianthrene polymers. Thermal stability increased in the reverse order, the dibenzodioxin polymers being more stable than the corresponding open-chain polymers containing di-Ph ether linkages. Polyamides prepared from the 2,8-diamines had lower glass transition temps. than those prepared from the 2,7-diamines.
IT 74937-64-7P 74937-65-8P 74937-66-9P
74937-67-0P 74937-68-1P 74937-69-2P
74937-94-3P 74937-95-4P 74937-96-5P
74937-97-6P 74937-98-7P 74937-99-8P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal stability of)
RN 74937-64-7 CAPLUS
CN 1,4-Benzenedicarbonyl dichloride, polymer with dibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

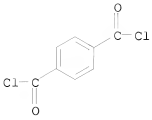
CM 1

CRN 71400-35-6
CMF C12 H10 N2 O2



CM 2

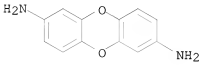
CRN 100-20-9
CMF C8 H4 Cl2 O2



RN 74937-65-8 CAPLUS
CN 1,3-Benzenedicarbonyl dichloride, polymer with dibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

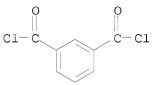
CM 1

CRN 71400-35-6
CMF C12 H10 N2 O2



CM 2

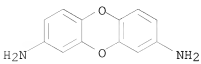
CRN 99-63-8
CMF C8 H4 C12 O2



RN 74937-66-9 CAPLUS
CN 1,4-Benzenedicarbonyl dichloride, polymer with dibenzo[b,e][1,4]dioxin-2,8-diamine (9CI) (CA INDEX NAME)

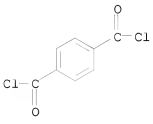
CM 1

CRN 71400-36-7
CMF C12 H10 N2 O2



CM 2

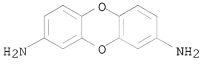
CRN 100-20-9
CMF C8 H4 Cl2 O2



RN 74937-67-0 CAPLUS
CN 1,3-Benzenedicarbonyl dichloride, polymer with dibenzo[b,e][1,4]dioxin-2,8-diamine (9CI) (CA INDEX NAME)

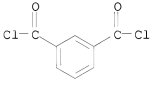
CM 1

CRN 71400-36-7
CMF C12 H10 N2 O2



CM 2

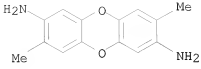
CRN 99-63-8
CMF C8 H4 Cl2 O2



RN 74937-68-1 CAPLUS
CN 1,4-Benzenedicarbonyl dichloride, polymer with 3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

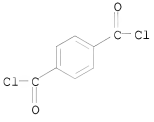
CM 1

CRN 71400-30-1
CMF C14 H14 N2 O2



CM 2

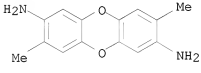
CRN 100-20-9
CMF C8 H4 Cl2 O2



RN 74937-69-2 CAPLUS
CN 1,3-Benzenedicarbonyl dichloride, polymer with 3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

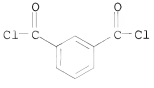
CM 1

CRN 71400-30-1
CMF C14 H14 N2 O2

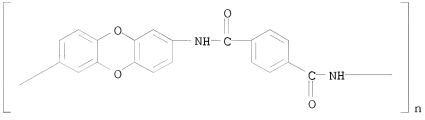


CM 2

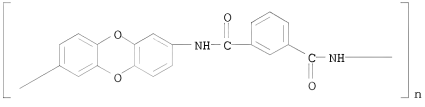
CRN 99-63-8
CMF C8 H4 Cl2 O2



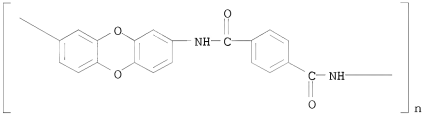
RN 74937-94-3 CAPLUS
CN Poly(dibenzo[b,e][1,4]dioxin-2,7-diyliminocarbonyl-1,4-phenylenecarbonylimino) (9CI) (CA INDEX NAME)



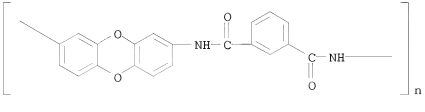
RN 74937-95-4 CAPLUS
CN Poly(dibenzo[b,e][1,4]dioxin-2,7-diyliminocarbonyl-1,3-phenylenecarbonylimino) (9CI) (CA INDEX NAME)



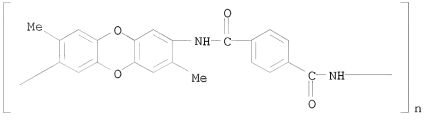
RN 74937-96-5 CAPLUS
CN Poly(dibenzo[b,e][1,4]dioxin-2,8-diyliminocarbonyl-1,4-phenylenecarbonylimino) (9CI) (CA INDEX NAME)



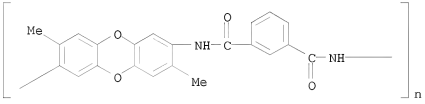
RN 74937-97-6 CAPLUS
CN Poly(dibenzo[b,e][1,4]dioxin-2,8-diyliminocarbonyl-1,3-phenylenecarbonylimino) (9CI) (CA INDEX NAME)



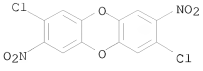
RN 74937-98-7 CAPLUS
CN Poly[(3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diyl)iminocarbonyl-1,4-phenylenecarbonylimino] (9CI) (CA INDEX NAME)



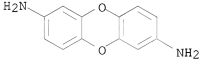
RN 74937-99-8 CAPLUS
CN Poly[(3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diyl)iminocarbonyl-1,3-phenylenecarbonylimino] (9CI) (CA INDEX NAME)



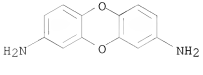
L6 ANSWER 27 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1980:57956 CAPLUS
DN 92:57956
OREF 92:9595a,9598a
TI Electronic factors affecting receptor binding of dibenzo-p-dioxins and dibenzofurans
AU Cheney, B. Vernon; Tolly, Timothy
CS Res. Lab., Upjohn Co., Kalamazoo, MI, 49001, USA
SO International Journal of Quantum Chemistry (1979), 16(1), 87-110
CODEN: IJQCB2; ISSN: 0020-7608
DT Journal
LA English
AB The electronic structure of 25 chlorinated dibenzo-p-dioxins and dibenzofurans, characterized using the ab initio mol.-fragment technique, was employed in a quant. structure-activity relationship involving electronic and steric parameters for the hepatic cytosol-binding species previously described (Poland, A., et al, 1976). The toxins act as electron acceptors in a charge-transfer complex with the receptor.
IT 71721-79-4
RL: PRP (Properties)
(electronic structure of, biol. activity in relation to)
RN 71721-79-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dichloro-3,8-dinitro- (CA INDEX NAME)



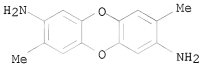
L6 ANSWER 28 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1979:541483 CAPLUS
DN 91:141483
OREF 91:22831a,22834a
TI Heat-resistant polymers containing thianthrene analogs units. I. Polyimides
AU Niume, K.; Nakamichi, K.; Takatuka, R.; Toda, F.; Uno, K.; Iwakura, Y.
CS Fac. Eng., Univ. Tokyo, Tokyo, 113, Japan
SO Journal of Polymer Science, Polymer Chemistry Edition (1979), 17(8), 2371-85
CODEN: JPLCAT; ISSN: 0360-6376
DT Journal
LA English
AB Heat-resistant polyimides were prepared from pyromellitic dianhydride or benzophenone tetracarboxylic dianhydride and 2,8-diaminodibenzo-p-dioxin [71400-36-7], 2,7-diaminodibenzo-p-dioxin [71400-35-6], 2,7-diamino-3,8-dimethyldibenzo-p-dioxin [71400-30-1], or 2,7-diaminothianthrene [60785-14-0]. The polyimides that contained dibenzo-p-dioxin units exhibited sufficient thermal stability and were insol., even in concentrated H2SO4; the introduction of Me groups did not appreciably increase the soluble Thianthrene polyimides were considerably less stable than the equivalent polymers derived from 4,4'-diaminodiphenyl sulfide but were partly soluble in acid solvents. The results were discussed in terms of mol. packing.
IT 71400-35-6P 71400-36-7P
RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation and polymerization of, with aromatic dianhydrides)
RN 71400-35-6 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine (CA INDEX NAME)



RN 71400-36-7 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,8-diamine (CA INDEX NAME)



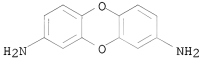
IT 71400-30-1P
RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation and polymerization of, with dianhydrides)
RN 71400-30-1 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, 3,8-dimethyl- (CA INDEX NAME)



IT 71402-28-3P 71402-29-4P 71402-30-7P
71402-31-8P 71402-32-9P 71402-33-0P
71402-46-5P 71402-47-6P 71402-48-7P
71402-49-8P 71402-50-1P 71402-51-2P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation and properties of)
RN 71402-28-3 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-carbonylbis-, polymer with dibenzo[b,e][1,4]dioxin-2,8-diamine (9CI) (CA INDEX NAME)

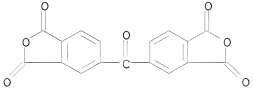
CM 1

CRN 71400-36-7
CMF C12 H10 N2 O2



CM 2

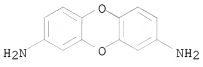
CRN 2421-28-5
CMF C17 H6 O7



RN 71402-29-4 CAPLUS
CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with dibenzo[b,e][1,4]dioxin-2,8-diamine (9CI) (CA INDEX NAME)

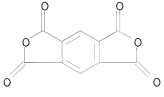
CM 1

CRN 71400-36-7
CMF C12 H10 N2 O2



CM 2

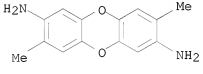
CRN 89-32-7
CMF C10 H2 O6



RN 71402-30-7 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-carbonylbis-, polymer with 3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

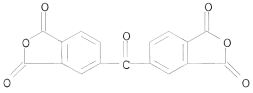
CM 1

CRN 71400-30-1
CMF C14 H14 N2 O2



CM 2

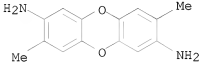
CRN 2421-28-5
CMF C17 H6 O7



RN 71402-31-8 CAPLUS
CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with 3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

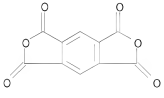
CM 1

CRN 71400-30-1
CMF C14 H14 N2 O2



CM 2

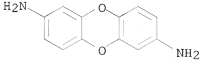
CRN 89-32-7
CMF C10 H2 O6



RN 71402-32-9 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-carbonylbis-, polymer with dibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

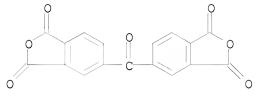
CM 1

CRN 71400-35-6
CMF C12 H10 N2 O2



CM 2

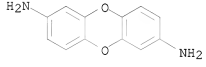
CRN 2421-28-5
CMF C17 H6 O7



RN 71402-33-0 CAPLUS
CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with dibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

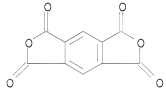
CM 1

CRN 71400-35-6
CMF C12 H10 N2 O2

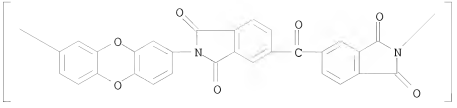


CM 2

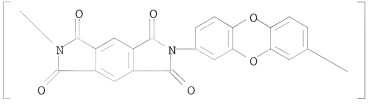
CRN 89-32-7
CMF C10 H2 O6



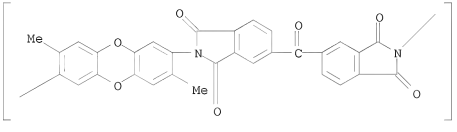
RN 71402-46-5 CAPLUS
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)dibenzo[b,e][1,4]dioxin-2,8-diyl] (9CI) (CA INDEX NAME)



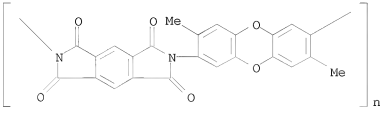
RN 71402-47-6 CAPLUS
CN Poly[(5,7-dihydro-1,3,5,7-tetraoxobenzo[1,2-c:4,5-c']dipyrrole-2,6(1H,3H)-diyl)dibenzo[b,e][1,4]dioxin-2,8-diyl] (9CI) (CA INDEX NAME)



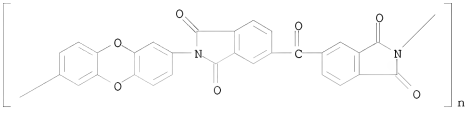
RN 71402-48-7 CAPLUS
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diyl)] (9CI) (CA INDEX NAME)



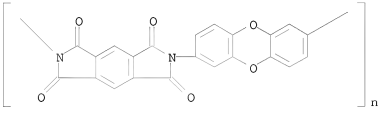
RN 71402-49-8 CAPLUS
CN Poly[(5,7-dihydro-1,3,5,7-tetraoxobenzo[1,2-c:4,5-c']dipyrrole-2,6(1H,3H)-diyl)(3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diyl)] (9CI) (CA INDEX NAME)



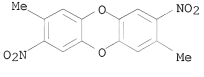
RN 71402-50-1 CAPLUS
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)dibenzo[b,e][1,4]dioxin-2,7-diyl] (9CI) (CA INDEX NAME)



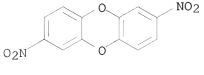
RN 71402-51-2 CAPLUS
CN Poly[(5,7-dihydro-1,3,5,7-tetraoxobenzo[1,2-c:4,5-c']dipyrrole-2,6(1H,3H)-diyl)dibenzo[b,e][1,4]dioxin-2,7-diyl] (9CI) (CA INDEX NAME)



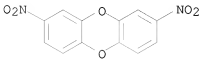
IT 14967-03-4P 71400-33-4P 71400-34-5P
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(preparation and reduction of)
RN 14967-03-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dimethyl-3,8-dinitro- (CA INDEX NAME)



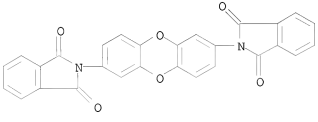
RN 71400-33-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



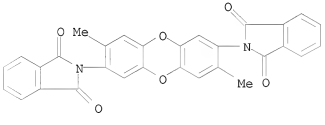
RN 71400-34-5 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,8-dinitro- (CA INDEX NAME)



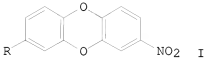
IT 71400-37-8P 71400-38-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 71400-37-8 CAPLUS
CN 1H-Isoindole-1,3(2H)-dione, 2,2'-dibenzo[b,e][1,4]dioxin-2,7-diylbis- (9CI) (CA INDEX NAME)



RN 71400-38-9 CAPLUS
CN 1H-Isoindole-1,3(2H)-dione, 2,2'-(3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diyl)bis- (9CI) (CA INDEX NAME)



L6 ANSWER 29 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1977:15868 CAPLUS
DN 86:15868
OREF 86:2581a,2584a
TI ESR spectra of the nitrodibenzo-p-dioxin radical species
AU Baciu, I.; Hillebrand, Mihaela; Sahini, V. E.; Volanschi, Elena
CS Dep. Phys. Chem., Polytech. Inst., Bucharest, Rom.
SO Revue Roumaine de Chimie (1976), 21(4), 485-9
CODEN: RRCHAX; ISSN: 0035-3930
DT Journal
LA English
GI



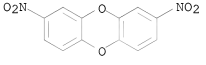
I

AB The hyperfine splitting consts. in the ESR of the radical cation and anion of I (R = H) and the radical cation of I (R = NO2) were calculated by Hueckell and McLachlan MO methods. Little spin was observed on the NO2 groups in the radical cations while most of the spin d. was localized on the NO2 group in the radical anion.

IT 61240-47-9
RL: PRP (Properties)
(ESR of, hyperfine splittings in, NMR calcn. of)

RN 61240-47-9 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 2,8-dinitro-, radical ion(1+) (9CI) (CA INDEX NAME)



L6 ANSWER 30 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1974:133360 CAPLUS

DN 80:133360

OREF 80:21509a,21512a

TI Synthesis and Fourier transform carbon-13 spectroscopy of new toxic polyhalodibenzo-p-dioxins

AU Kende, Andrew S.; Wade, James J.; Ridge, David; Poland, Alan

CS Dep. Chem., Univ. Rochester, Rochester, NY, USA

SO Journal of Organic Chemistry (1974), 39(7), 931-7
CODEN: JOCEAH; ISSN: 0022-3263

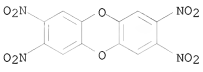
DT Journal

LA English

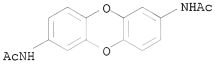
AB The extraordinary toxicity and potential environmental significance of certain polyhalodibenzo-p-dioxins has led to the regiospecific syntheses of these compds. by condensation of catechol derivs. with various polyhalobenzenes. Electrophilic halogenation of 2,3-dihalodibenzo-p-dioxins, available by the above route, leads mainly to 2,3,7,8-tetrahalo derivs., but these are more cleanly obtained by direct condensation of 4,5-dichlorocatechol with 1,2,4,5-tetrahalobenzenes. Fourier transform 13C spectroscopy is a useful structural probe in this series. Some structure-activity relations for enzyme induction by polyhalodibenzo-p-dioxins are outlined.

IT 52354-40-2 52354-41-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(structure activity relation for aryl hydrocarbon hydroxylase induction

in chick embryo liver)
RN 52354-40-2 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetranitro- (CA INDEX NAME)



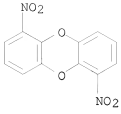
RN 52354-41-3 CAPLUS
CN Acetamide, N,N'-dibenzo[b,e][1,4]dioxin-2,7-diylbis- (CA INDEX NAME)



L6 ANSWER 31 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1972:514413 CAPLUS
DN 77:114413
OREF 77:18857a,18860a
TI Catalytic preparation of dibenzopdioxins
IN Lester, George R.; Brennan, John F.
PA Universal Oil Products Co.
SO U.S., 3 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 3679704	A	19720725	US 1969-848359	19690807
PRAI US 1969-848359	A	19690807		

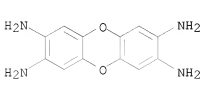
GI For diagram(s), see printed CA Issue.
AB The dibenzo-p-dioxins (I, R = H, Me, Et, MeO, NO2) were prepared by catalytic dimerization of phenols by PdCl2-Cu. Thus, 130 mmole o-cresol, 11 mmole PdCl2, 340 mmole CuCl2, and 100 mmole NaOAc in HOAc was refluxed to give I (R = Me).
IT 37061-69-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 37061-69-1 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 1,6-dinitro- (CA INDEX NAME)



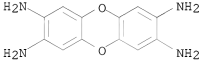
L6 ANSWER 32 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1971:552388 CAPLUS
DN 75:152388
OREF 75:24041a,24044a
TI Heat stable ladder polymers
IN Grundschober, Friedrich; Arendt, John H.
PA Centre National d'Etudes Spatiales
SO Ger. Offen., 17 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2059079	B2	19740117	DE 1970-2059079	19701201
	DE 2059079	C3	19740815		
	FR 2070327	A5	19710910	FR 1969-41392	19691201
	GB 1323606	A	19730718	GB 1970-55130	19701119
	US 3681284	A	19720801	US 1970-93748	19701130
	JP 48030153	B	19730918	JP 1970-106237	19701201
PRAI	FR 1969-41392	A	19691201		

AB Heat stable pyromalic (sic)dianhydride-2,3,7,8-tetraaminodibenzo-p-dioxin ladder copolymer (I) films with good tensile strength and dimensional stability were prepared Thus, treatment of 2,3,7,8-tetraaminodibenzo-p-dioxin, prepared by nitration of dibenzo-p-dioxin and subsequent reduction with pyromalic (sic) dianhydride in AcNMe2 at - 10 to - 15° and cooling at - 80° gave a prepolymer with viscosity 15 P. Polymerization of a prepolymer film for 2.5 hr at 150-370° gave a dark red 22 μ I film with elongation at break 3%, breaking strength 12.5 kg/mm2, elasticity modulus 440 kg/mm2 at 25°, and weight loss 1.5% after 4 hr at 450°, in vacuo.
IT 34294-67-2
RL: USES (Uses)
(polyimides, manufacture of heat-resistant)
RN 34294-67-2 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,3,7,8-tetramine (CA INDEX NAME)



L6 ANSWER 33 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1968:115064 CAPLUS
DN 68:115064
OREF 68:22211a,22214a
TI Thermally stable ladder polyquinoxalines
AU Stille, John K.; Mainen, E. L.
CS Univ. of Iowa, Iowa City, IA, USA
SO Macromolecules (1968), 1(1), 36-42
CODEN: MAMOBX; ISSN: 0024-9297
DT Journal
LA English
AB Five thermally stable quinoxaline polymers were prepared by condensation of the aromatic tetramines 1,2,4,5-tetraminobenzene and 2,3,6,7-tetraminodibenzo-p-dioxin with 2,5-dihydroxy-p-benzoquinone or the tetraketones 1,2,6,7-tetraketopyrene and 1,2,5,6-tetraketoanthracene. All of the polymers obtained were completely soluble in 1,3-dichloro-1,1,3,3-tetrafluoro-2,2-dihydroxypropane. The polymers prepared by the condensation of 1,2,4,5-tetraminobenzene with the teraketones 1,2,6,7-tetraketopyrene and 1,2,5,6-tetraketoanthracene had mol. wts. of 7000 and 12,000, resp. All of the polymers obtained had good heat stability in air, although the ladder polymers were not significantly more stable than the single-strand polyquinoxalines. The thermal stability of the ladder polymers in N was considerably greater than that of the corresponding single-strand polymer.
IT 16435-75-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 16435-75-9 CAPLUS
CN Dibenzo[b,e][1,4]dioxin-2,3,7,8-tetramine, tetrahydrochloride (9CI) (CA INDEX NAME)

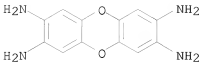


●4 HCl

IT 30326-66-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, ring closure in)
RN 30326-66-0 CAPLUS
CN p-Benzoquinone, 2,5-dihydroxy-, polymer with dibenzo-p-dioxin-2,3,7,8-tetramine (8CI) (CA INDEX NAME)

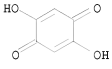
CM 1

CRN 34294-67-2
CMF C12 H12 N4 O2



CM 2

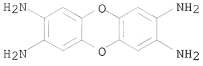
CRN 615-94-1
CMF C6 H4 O4



L6 ANSWER 34 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1967:517373 CAPLUS
DN 67:117373
OREF 67:22151a,22154a
TI Ladder polyquinoxalines from an aliphatic tetraketone
AU Stille, John K.; Freeburger, Michael E.
CS Univ. of Iowa, Iowa City, IA, USA
SO Journal of Polymer Science, Polymer Letters Edition (1967), 5(11), 989-92
CODEN: JPYBAN; ISSN: 0360-6384
DT Journal
LA English
AB Ladder polyquinoxalines (I) (C16H14N4)n were prepared in 73% yield by the polymerization of 3,3,6,6-tetramethylcyclohexane-1,2,4,5-tetraone (II) with 1,2,4,5-tetraaminobenzene in dioxane solns. at 180° for 17 hrs. When II was treated 24 hrs. at 180° with 2,3,6,7-tetraaminobenzodioxane tetrahydrochloride in dioxanepyridine solns. it gave 67% polyquinoxaline (C22H16N4O2)n (III) with inherent viscosity 0.02 [hexamethylphosphoramide (IV) at 25°]. The polymerization failed in IV solns. Thermal gravimetric analyses of I and III showed that they were less stable than ladder polyquinoxalines containing a totally aromatic backbone. I and III decomposed in air at 390° and 200°, resp. The uv and visible spectra of I and III were given and compared with those of bisquinoxaline prepared by treating II with o-phenylenediamine.
IT 30921-40-5
RL: USES (Uses)
(ladder, thermal decomposition and spectrum of)
RN 30921-40-5 CAPLUS
CN 1,2,4,5-Cyclohexanetetrone, 3,3,6,6-tetramethyl-, polymer with dibenzo-p-dioxin-2,3,7,8-tetramine (8CI) (CA INDEX NAME)

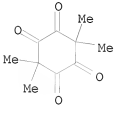
CM 1

CRN 34294-67-2
CMF C12 H12 N4 O2



CM 2

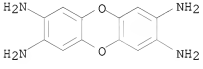
CRN 13855-97-5
CMF C10 H12 O4



IT 30921-40-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of ladder, thermal decomposition and visible and uv spectrum of)
RN 30921-40-5 CAPLUS
CN 1,2,4,5-Cyclohexanetetrone, 3,3,6,6-tetramethyl-, polymer with dibenzo-p-dioxin-2,3,7,8-tetramine (8CI) (CA INDEX NAME)

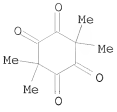
CM 1

CRN 34294-67-2
CMF C12 H12 N4 O2

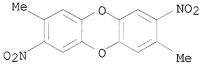


CM 2

CRN 13855-97-5
CMF C10 H12 O4

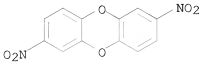


L6 ANSWER 35 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1967:454088 CAPLUS
DN 67:54088
OREF 67:10175a,10178a
TI Nitration of 2,7-diacetyl-3,8-dimethyldibenzo-p-dioxin
AU Govindachari, Tuticorin R.; Sathe, S. S.; Viswanathan, N.
CS CIBA Res. Center Goregaon, Bombay, India
SO Indian Journal of Chemistry (1967), 5(3), 128
CODEN: IJOCAP; ISSN: 0019-5103
DT Journal
LA English
GI For diagram(s), see printed CA Issue.
AB cf. Tomita, CA 31: 1041. Treatment of I (Tomita, loc cit) in HOAc with concentrated HNO3 (d. 1.35) at 60-70° for 1 hr. gave a mixture containing unreacted I and II, m. >360° (gradually decomposing>340°), identical with an authentic sample prepared by the oxidation of I with NaOCl in aqueous dioxane. Treatment of II with ethereal CH2N2 gave the ester III, m. 220-2°. Oxidation of II with alkaline KMnO4 gave IV, which with CH2N2 gave the ester (V), m. 196-7°. Nitration of I in HOAc using fuming HNO3 (d. 1.50) at 70-80° gave 60% VI m. 240-1°, identical with an authentic sample prepared by nitration of VII according to the reported procedure (Tomita and Ueda, CA 54: 18528c). The ir and N.M.R. spectra of the various products are recorded. The results obtained are at variance with those recorded by Tomita (loc. cit).
IT 14967-03-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 14967-03-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dimethyl-3,8-dinitro- (CA INDEX NAME)

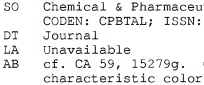


L6 ANSWER 36 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1964:82339 CAPLUS
DN 60:82339
OREF 60:14363e-f
TI Dibenzo-p-dioxin (diphenylene dioxide) derivatives. XXXIX. Electron spin resonance spectra of dibenzo-p-dioxin derivatives in antimony

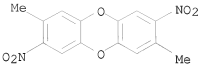
pentachloride
AU Tomita, Masao; Ueda, Shinichi
CS Univ. Kyoto, Japan
SO Chemical & Pharmaceutical Bulletin (1964), 12(1), 40-2
CODEN: CPBTAL; ISSN: 0009-2363
DT Journal
LA Unavailable
AB Dibenzo-p-dioxin derivs. were blue in $SbCl_5$·. E.S.R. spectra confirmed the presence of radical cations.
IT 71400-33-4
(Derived from data in the 7th Collective Formula Index (1962-1966))
RN 71400-33-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



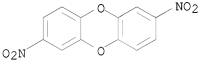
L6 ANSWER 37 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1964:82338 CAPLUS
DN 60:82338
OREF 60:14363e
TI Dibenzo-p-dioxin (diphenylene dioxide) derivatives. XXXVIII. Color reaction of dibenzo-p-dioxin derivatives in concentrated sulfuric acid with oxidizing agents-detection by electron spin resonance (E.S.R.) spectra
AU Tomita, Masao; Ueda, Shinichi
CS Univ. Kyoto, Japan
SO Chemical & Pharmaceutical Bulletin (1964), 12(1), 33-40
CODEN: CPBTAL; ISSN: 0009-2363
DT Journal
LA Unavailable
AB cf. CA 59, 15279g. Compds. based on the dibenzo-p-dioxin structure give a characteristic color (blue or green-blue, sometimes violet) in concentrated H_2SO_4 with an oxidizing agent (KNO_3). E.S.R. spectra show that the color is due to the formation of radical cations.
IT 71400-33-4
(Derived from data in the 7th Collective Formula Index (1962-1966))
RN 71400-33-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



IT 14967-03-4, Dibenzo-p-dioxin, 2,7-dimethyl-3,8-dinitro-
(magnetic resonance absorption of, in H_2SO_4)
RN 14967-03-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dimethyl-3,8-dinitro- (CA INDEX NAME)



L6 ANSWER 38 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1964:82337 CAPLUS
DN 60:82337
OREF 60:14363d-e
TI Evidence of electron-exchange between the triphenylmethyl radical and triphenylmethyl cation in solution
AU Lown, J. W.
CS Univ. Alberta, Edmonton, Can.
SO Proc. Chem. Soc. (1963), (Sept.), 283-4
DT Journal
LA Unavailable
AB Addition of Ph3C+ (formed from Ph3COH and CF3CO2H) to Ph3C· (formed from Ph3CBr and Hg) in 3:7 CF3CO2H-HOAc gave a solution whose electron paramagnetic resonance spectrum indicated exchange of an electron between the radical and the cation. The exchange was 1st order in each species, and the rate constant was estimated to be 1.3 + 108 l. mole-1 sec.-1 at 25°.
IT 71400-33-4
(Derived from data in the 7th Collective Formula Index (1962-1966))
RN 71400-33-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



L6 ANSWER 39 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1964:7976 CAPLUS
DN 60:7976
OREF 60:1363e-f
TI The condition of the double electrically charged layer of tantalite and of some accompanying minerals during flotation
AU Naifonov, T. B.; Pol'kin, S. I.; Shafeev, R. Sh.
CS Inst. Steel and Alloys, Moscow
SO Izvestiya Vysshikh Uchebnykh Zavedenii, Tsvetnaya Metallurgiya (1963), 6(3), 40-6
CODEN: IVUTAK; ISSN: 0021-3438
DT Journal
LA Unavailable
AB During flotation (pH 6-8) the adsorption of the collector (oleic acid) by tantalite, tourmaline, and garnet occurs when the electrokinetic index reaches the highest value. The attraction of oleic acid to the surfaces

of the subject minerals is of chemisorption nature. The change in the elec. charge of the double layer is determined for different HCl and KOH concns. and adsorption potential for oleic acid at the surface of tantalite is calculated 16 references.

IT 71400-33-4, Dibenzo-p-dioxin, 2,7-dinitro-
(magnetic resonance absorption of, in H2SO4)

RN 71400-33-4 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)